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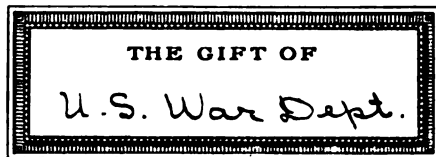
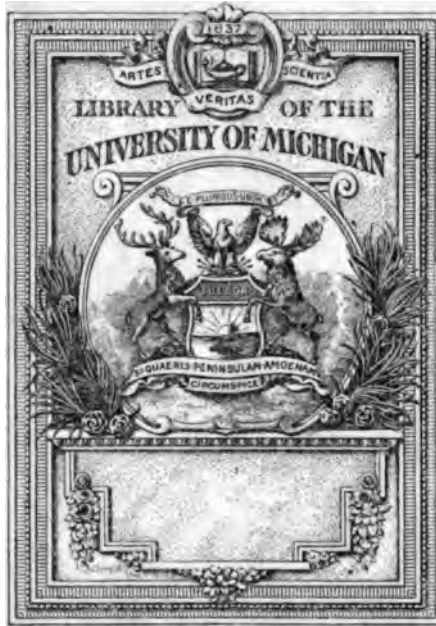
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# ARRANGEMENT OF THE ANNUAL REPORTS OF THE WAR DEPARTMENT FOR THE YEAR ENDED JUNE 30, 1905.

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Volume II .....	<b>Armament, Transportation and Supply:</b> Quartermaster-General. Commissary-General. Surgeon-General. Paymaster-General. Chief of Engineers, Military Affairs. <sup>a</sup> Chief of Ordnance. <sup>b</sup> Chief Signal Officer. Chief of Artillery. Board of Ordnance and Fortification.
Volume III .....	<b>Division and Department Commanders:</b> Atlantic Division— 1. Department of the East. 2. Department of the Gulf. Northern Division— 1. Department of the Lakes. 2. Department of the Missouri. 3. Department of Dakota. Southwestern Division— 1. Department of Texas. 2. Department of the Colorado. Pacific Division— 1. Department of California. 2. Department of the Columbia. Philippines Division— 1. Department of Luzon. 2. Department of the Visayas. 3. Department of Mindanao.
Volume IV .....	<b>Militia Affairs, Military Schools and Colleges, Military Parks, and Soldiers' Homes.</b> The Military Secretary, Militia Affairs. <sup>c</sup> Military Academy— 1. Board of Visitors. 2. Superintendent. Infantry and Cavalry School and Staff College. School of Application for Cavalry and Field Artillery. Artillery School. Engineer School. School of Submarine Defense. Army Medical School. Commissioners of National Military Parks— 1. Chickamauga and Chattanooga. 2. Gettysburg. 3. Shiloh. 4. Vicksburg. Soldiers' Home, District of Columbia— 1. Board of Commissioners. 2. Inspection of. Inspection of National Home for Disabled Volunteer Soldiers.
Volumes V-VIII .....	Chief of Engineers.
Volume IX .....	Chief of Ordnance.
Volumes X-XIV .....	The Chief of the Bureau of Insular Affairs, the Philippine Commission, and Acts of the Philippine Commission.

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<sup>a</sup> Printed in Report of Chief of Engineers, Vol. V.

<sup>b</sup> Printed in Report of Chief of Ordnance, Vol. IX.

<sup>c</sup> Printed as Appendix B in Report of Secretary of War, Vol. 1.



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## REPORT ON MILITIA.

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To avoid duplication, Report of The Military Secretary, Militia Affairs, is printed as Appendix B to Report of the Secretary of War, Volume I.

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**REPORT OF THE BOARD OF VISITORS TO THE  
UNITED STATES MILITARY ACADEMY.**

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## REPORT OF THE BOARD OF VISITORS TO THE UNITED STATES MILITARY ACADEMY.

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WEST POINT, N. Y., *June 13, 1905.*

SIR: We beg to submit herewith the annual report of the Board of Visitors appointed under sections 1327, 1328, and 1329, Revised Statutes of the United States, "to inquire into the actual state of discipline, instruction, police administration, fiscal affairs, and other concerns of the institution, and to report the same to the Secretary of War for the information of Congress."

The membership of the board is as follows:

*Appointed by the President of the United States.*—(1) Hon. Joseph G. Cannon, Danville, Ill. (declined); (2) Col. William F. Prosser, Seattle, Wash.; (3) Mr. John Schroers, St. Louis, Mo.; (4) Hon. Charles F. Brooker, Ansonia, Conn.; (5) Col. Dudley Evans, 51 Broadway, New York City; (6) Dr. G. Lloyd Magruder, Washington, D. C.; (7) Hon. Franklin Murphy, Newark, N. J.

*Appointed by the President pro tempore of the Senate.*—(8) Hon. Chauncey M. Depew, Peekskill, N. Y.; (9) Hon. Charles A. Culberson, Dallas, Tex.

*Appointed by the Speaker of the House of Representatives.*—(10) Hon. Washington Gardner, Albion, Mich.; (11) Hon. John J. Esch, La Crosse, Wis.; (12) Hon. James L. Slayden, San Antonio, Tex.

The board met at West Point, N. Y., on Thursday, June 1, at 2.30 p. m., the following members being present: William F. Prosser, John Schroers, Charles F. Brooker, Dudley Evans, Dr. G. Lloyd Magruder, Franklin Murphy, and James L. Slayden. (Messrs. Washington Gardner and John J. Esch reported in the evening and Charles A. Culberson on the following day.)

The board organized by the election of Franklin Murphy as president, Dudley Evans as vice-president, and John Schroers as secretary.

The board notified the Superintendent of the Academy, Brig. Gen. A. L. Mills, of its organization, in response to which it was informed that Capt. Francis C. Marshall, Fifteenth Cavalry; Capt. John McA. Palmer, Fifteenth Infantry; Capt. Frederick W. Alstaetter, Corps of Engineers; Capt. Jesse C. Nicholls, Artillery Corps, and Lieut. Joseph A. Baer, Sixth Cavalry, were directed to report to the board and aid it as far as possible in the prosecution of its work.

The Superintendent made an official call on the board, accompanied by his staff. At 4 o'clock the board witnessed a review of the Corps of Cadets given in its honor, after which it attended a reception at the quarters of the Superintendent, where it met the various officers and ladies of the post and the members of the graduating class.

The board held meetings each morning at 9 o'clock, and had before

it at various times the Superintendent, Brig. Gen. A. L. Mills; the Commandant of Cadets, Lieut. Col. Charles G. Treat; Lieut. Col. Harry O. Perley, Deputy Surgeon-General, and Capt. Herman J. Koehler, instructor of military gymnastics and physical culture.

General Mills was interrogated freely as to the general work at the Academy and its condition, both physical and personal. The other officers were questioned about the special work of their departments. The board was glad to notice a desire on the part of all, not only those referred to but many other officers whom they met during their stay, to place before it full information on every subject inquired of, and every facility was offered the board to make the fullest examination of the Academy and its work.

The members of the board inspected the academic building, the cadet barracks, the mess hall, the cadet hospital, the post headquarters (all of them with thoroughness), and, besides witnessing the daily guard mounts and dress parades, they were also given an opportunity to observe the cadets at drill and at inspection in heavy marching order. They saw evolutions by the infantry, cavalry, and engineers; and they also witnessed a tactical problem conducted in the evening, and an exhibition of riding in the riding hall.

Altogether the board spent nearly two weeks at the Academy, and the members gave their full time to the work for which they were appointed.

The following committees were appointed:

*Fiscal affairs.*—Charles F. Brooker, William F. Prosser, James L. Slayden, Washington Gardner.

*Buildings and grounds.*—John J. Esch, G. Lloyd Magruder, James L. Slayden, Charles A. Culberson.

*Instruction, discipline, and hygiene.*—William F. Prosser, G. Lloyd Magruder, John J. Esch, Dudley Evans.

*Arms and equipment.*—Dudley Evans, Washington Gardner, Charles F. Brooker, Charles A. Culberson.

These committees gave their diligent attention to the special matters intrusted to them, and their reports will be found attached hereto and are made a part of this report. The recommendations made in the reports of the various committees have been approved and adopted by the board.

The board received a communication from the Superintendent, dated June 1, which is attached hereto and marked "Appendix A."

A second communication was received from the Superintendent, dated June 2, which is attached hereto and marked "Appendix B," recommending that the head of the department of ordnance and gunnery shall be an officer detailed for that purpose from the Army, who, while so serving, shall have the title of professor and the rank and pay of lieutenant-colonel. The board recommends that this be done.

As a result of its investigations, the board recommends that special attention be given to the recommendation of the committee on instruction and discipline, that the minimum height of the cadet necessary for admission to the Academy be increased. The board gave much time and discussion to this important subject, and it is unanimously of the opinion that this action should be taken without delay. In this connection, the board submits two communications from Captain Koehler marked "Appendixes C and D" on the growth and development of the cadets, which give new and valuable information on this subject.

The board desires to express its opinion that the management of the Academy, both in discipline and efficiency, is all that could be desired. The Superintendent and the heads of the various departments are not only well qualified to discharge their duties in an efficient manner, but, without exception, they are possessed of a pride in their work and a devotion to their various duties that are producing satisfactory results, both in the general features as well as the endless detail of the work at the Academy.

Its thanks are due to General Mills and his assistants, not only for the many courtesies extended, which enabled it to pursue its work with intelligence, but for numberless personal attentions which made its stay at the Academy enjoyable.

Respectfully submitted.

FRANKLIN MURPHY.  
DUDLEY EVANS.  
WILLIAM F. PROSSER.  
WASHINGTON GARDNER.  
G. LLOYD MAGRUDER, M. D.  
JOHN J. ESCH.  
CHAS. F. BROOKER.  
JOHN SCHROERS.  
C. A. CULBERSON.

The SECRETARY OF WAR,  
*Washington, D. C.*





## APPENDIX A.

WEST POINT, N. Y., *June 1, 1905.*

SIR: I have the honor to submit herewith for the consideration of the Board of Visitors a general statement as to the provisions made by Congress for the improvement of the Military Academy and an outline of what has been done up to the present time with a view to carrying out the intentions of Congress.

The act providing for the enlargement of the Military Academy, approved June 28, 1902, reads in part as follows:

To increase the efficiency of the United States Military Academy at West Point, New York, and to provide for the enlargement of buildings and for other necessary works of improvement in connection therewith, and to provide for an increased water supply at a cost not to exceed one hundred thousand dollars, made necessary by the increased number of cadets now authorized by law, immediately available and to remain so until expended, two million dollars: *Provided*, That before any part of this amount is expended, \* \* \* complete plans shall be prepared and approved by the Secretary of War, covering all necessary buildings and improvements at West Point and for each and every purpose connected therewith, which plans shall involve a total expenditure of not more than five million five hundred thousand dollars, including the sum herein appropriated: *Provided further*, That after the preparation and approval of the plans herein provided, the Secretary of War is authorized to enter into a contract or contracts for any part or all of the improvements herein authorized within the said limits of cost, to be paid for from the appropriations annually made for this purpose. \* \* \*

### WATER SUPPLY.

The provision for an adequate water supply was increased by \$300,000 by a later act of Congress. The preliminary work of securing the necessary property and rights of way, purchasing the necessary material, and contracting for the execution of the plans is well under way, and within eighteen months it is hoped that the entire project will be completed. An ample supply of water will then be provided for all the uses of the Military Academy for an indefinite period. The supply itself is taken from what is known as Popolopen Creek, which is a small stream emptying into the Hudson River just below Fort Montgomery. The quality of the water is excellent, and the 20-inch main leading from the intake, some 3 miles above the outlet of the stream, to Lusk Reservoir will supply, in the driest seasons, several million gallons of water per day.

### BUILDINGS.

The firm of architects, Messrs. Cram, Goodhue & Ferguson, of Boston, Mass., who won the competition by their design for the improvement of the buildings and grounds at the Academy, have been continuously at work for over two years in the preparation of the detailed plans and specifications for the new buildings. The general plan, a copy of which is transmitted herewith,<sup>a</sup> was approved by the Secretary of War on January 27, 1904, and on this plan is shown the

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<sup>a</sup> Omitted.

location of all the buildings. Up-to-date plans and specifications for the following have been completed and approved by the Secretary of War:

- Cavalry and artillery barracks and stable.
- Artillery gun shed.
- Riding hall.
- Cadet headquarters and cadet store.
- Cadet barracks.
- Post headquarters.
- Quartermaster and commissary storehouse and shops.
- Guard and fire-engine house.
- Five triple sets of lieutenants' quarters.
- Two double sets of captains' quarters.

Plans for the new academic building are in the War Department awaiting the approval of the Secretary of War.

Plans for the following are well under way and will soon be submitted by the architects:

- Chapel.
- Hotel.
- Post exchange.
- Gymnasium.
- Elevator.
- Bachelor officers' quarters and additional officers' quarters.

With the receipt of these plans the Academy will be in possession of working drawings and specifications for all of the important new buildings which are comprised in the present scheme of improvement as shown on the general plan.

In the preparation of the working plans and drawings the method followed has been the same for each of the buildings. The architects were first furnished with the general requirements of the building. Based upon this information they drew up and submitted plans for each floor. These sketch plans were then referred to a board of officers composed of members of the academic board, who were thoroughly conversant with the functions to which the building was to be put and with its relations to the other buildings on the post. Other officers having especial interest in or knowledge concerning a particular building were directed to confer from time to time with this board, as well as with the Superintendent in his consideration of the sketch plans. The Superintendent has had the advice of an able officer of the Quartermaster's Department to aid in this work. The criticisms and recommendations of the board were, in each case, embodied in a written report made to the Superintendent. For the most important of these buildings the study of the sketch plans has occupied a period of many months. As a rule the architects, the board of officers, the constructing quartermaster, and the Superintendent have all agreed upon the final form of the plans. In some instances one or more of these parties have dissented from the adopted plan, but in all such cases a full discussion of the questions at issue has been had and the final decision, which has been in the hands of the Superintendent, has been based upon what seemed to be unanswerable arguments. Upon the approval of satisfactory sketch plans the architects have proceeded with the development of these plans into the working drawings. In this stage of the work it has been subjected to the most careful scrutiny by the constructing quartermaster. In the matter of the elevations of the buildings the architects have been unhampered, except in a few and isolated instances where questions of economy of construction or of practical use have dictated certain deviations from their ideas.

## CENTRAL HEATING AND LIGHTING PLANT.

Ground was broken on the site of the central heating and lighting plant on January 20, 1905, which date marks the beginning of the actual work of constructing the improvements at the Academy. The preparation of the site has been assiduously carried forward since that date by hired labor under the supervision of the constructing quartermaster. The contracts have already been signed for the purchase and installation of the machinery in the heating and lighting plant, and the plans for the building itself are under way.

## MATERIAL OF NEW BUILDINGS.

In addition to the building stone which has been taken out on the site of the heating and lighting plant, an excellent quarry has been opened up on a part of the reservation where the disfigurement of the ground is not important, and large quantities of stone have been taken out. The material of all the important buildings is to be of native granite with trimmings of Indiana limestone. Stone-colored brick will be used for the less important structures.

## ALLOTMENTS.

The Military Academy appropriation bill, approved March 3, 1905, contains the following:

In carrying out the provisions of the act of June twenty-eighth, nineteen hundred and two, after general plans have been prepared and approved by the Secretary of War, he may, within the limit of cost fixed, proceed with their execution in such order as the detailed plans may be approved by him and in such manner, by contract or otherwise, as he may see fit.

Under this authority the appropriation of \$5,800,000 has been allotted by the Secretary of War as shown in the table below. The Secretary has in addition approved of the construction, as soon as feasible, of the buildings named in this table:

Cadet barracks .....	\$275, 000. 00
Sixteen sets officers' quarters .....	180, 000. 00
Power house and distributing system .....	600, 000. 00
Roads, sewer, water, and gas, south end .....	75, 000. 00
South dock .....	25, 000. 00
Cavalry and artillery barracks, stables, and gun shed .....	404, 880. 00
One triple set lieutenants' quarters .....	30, 000. 00
Post headquarters .....	500, 000. 00
Chapel .....	300, 000. 00
Hotel .....	300, 000. 00
Removing and rebuilding present cadet chapel .....	20, 000. 00
Bachelor officers' quarters .....	100, 000. 00
Riding hall .....	695, 000. 00
Academic building .....	600, 000. 00
Gymnasium .....	300, 000. 00
Cadet headquarters and cadet store .....	275, 000. 00
Guardhouse and fire-engine house .....	63, 000. 00
Post exchange .....	50, 000. 00
Remodeling plumbing and heating system, present cadet barracks .....	35, 000. 00
Grading, roads, walls, sewer, water, and gas .....	75, 000. 00
Increase of water supply .....	400, 000. 00
Allotments, fixed charges, fees, and salary for architects and consulting architect .....	487, 904. 60
<b>Total .....</b>	<b>5, 790, 784. 60</b>

## GENERAL PLAN.

With the completion of the above buildings the Military Academy plant will be ready to meet all demands which will be put upon it by the natural growth of the Academy for fifty years. A certain part of the improvements contemplated can not be completed within this appropriation, but this additional work can be done as funds are appropriated for the purpose. To complete the entire general plan as approved by the Secretary of War and to carry out the project of landscape treatment which is at the present time being prepared by Messrs. Olmstead Brothers, of Brookline, Mass., and which is intended to supplement the general plan, additional appropriations aggregating, perhaps, \$2,000,000 will eventually be necessary, but the execution of this additional work is something which can not be accomplished for a number of years. As the new riding hall and academic building can not be commenced until the completion of buildings to take the place of those now standing, it is not expected that the work under the present appropriation can be completed before 1912. The work which will be done, either now or in the future, must, under the instructions of the War Department, follow the lines of the approved general plan, and the existence of this approved scheme is a matter upon which the Military Academy may well be congratulated, as it provides a definite end toward which the energies of the authorities may be directed.

## FORESTRY PLAN.

In addition to the general plan proper and the plan of landscape improvement which is under preparation, the Bureau of Forestry has developed a working plan for the treatment of the forest. The Military Academy reservation comprises about 2,500 acres, the greater part of which is forest lands. The forestry plan has been approved by the War Department and has been put into operation. It is designed to be a self-supporting scheme for a period of ten years, during which the object will be to put the forest lands into the best possible condition by a scientific treatment. After the expiration of this period the forest lands should annually yield a certain revenue to the Government, and be a model of what may be accomplished in this part of the country by proper forest management. Prof. Roy L. Marston, of the Yale Forestry School, has been appointed as forester and spends a portion of each year at the Academy, supervising the work which is being done.

Very respectfully,

A. L. MILLS,

*Brigadier-General, U. S. Army, Superintendent.*

Hon. FRANKLIN MURPHY,

*President Board of Visitors, Present.*

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APPENDIX B.

WEST POINT, N. Y., *June 2, 1905.*

SIR: I have the honor to submit for the consideration of the Board of Visitors the following: The department of ordnance and gunnery at the Military Academy has at its head a detailed officer with the title of "Instructor of Ordnance and Gunnery," whose term of service in

this capacity usually extends over four years. In the course of ordnance and gunnery, instruction is given in the principles involved in the construction and use of all war material. This instruction includes the practical application of a great number of principles taught in the other departments, and has a value to the future officer quite equal to that given in any course taught at the Academy. It is therefore proper that the head of this department of instruction should receive the same consideration as to his title and emoluments that is given to the heads of other academic departments. The head of every other academic department has the title of professor and the pay of a lieutenant-colonel, at least. The head of the department of law and history is a detailed officer, like the head of the department of ordnance and gunnery. The former, however, has the title of professor and the pay of a lieutenant-colonel, while the latter has the title of instructor with the pay of a major. The associate professors in the departments of mathematics and modern languages and the instructor of practical military engineering have the same pay as the instructor of ordnance and gunnery, although the duties of the associate professors are those of assistants and the course of practical military engineering is, as indicated by its title, hardly academic in its nature. There is thus a discrimination against the department of ordnance and gunnery in the nonrecognition of the head of the department, who is entitled to consideration with the heads of the other academic departments.

To remedy this condition of affairs requires the action of Congress. The desired result may be obtained by the insertion of a clause in the Military Academy appropriation bill providing that the head of the department of ordnance and gunnery shall be an officer detailed for that purpose from the Army who, while so serving, shall have the title of professor and the rank and pay of a lieutenant-colonel.

Should the Board of Visitors after investigation deem advisable the action suggested above, it is requested that favorable mention of the subject be made in the report of the Board.

Very respectfully,

A. L. MILLS,

*Brigadier-General, U. S. Army, Superintendent.*

HON. FRANKLIN MURPHY,

*President Board of Visitors, Present.*

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#### APPENDIX C.

WEST POINT, N. Y., June 10, 1905.

SIR: I have the honor to submit herewith the following report on the growth of cadets who were below 5 feet 6 inches in stature at the time of their admission to the Academy.

In order that comparisons may be made with conditions as they exist at present, I have selected only those who are members of the classes now in the corps. Of these I find 58 who were below that standard at admission, their average being 64.44 inches. The average growth of a class is approximately 0.40 inches during the first year.

The average growth of these young men for a period of about one year and four months was 0.30 inch.

The following table shows how this gain was distributed:

17 showed no changes.  
 5 showed a gain of 0.1 inch.  
 7 showed a gain of 0.2 inch.  
 6 showed a gain of 0.3 inch.  
 4 showed a gain of 0.4 inch.  
 8 showed a gain of 0.5 inch.  
 4 showed a gain of 0.6 inch.  
 2 showed a gain of 0.7 inch.  
 2 showed a gain of 0.9 inch.  
 3 showed a gain of 1 inch.

The ages ranged as follows: Four were 17 years old; fifteen were 18; fifteen were 19; thirteen were 20; six were 21, and five were 22 years of age.

The average rate of growth of the different ages was as follows: Seventeen years, 0.25 inch; 18 years, 0.28 inch; 19 years, 0.493 inch; 20 years, 0.27 inch; 21 years, 0.267 inch, and 22 years, 0.02 inch.

Placing the standard of height where it is to-day was no doubt done upon the supposition that a young man who was below the average standard—which is about 68.25 inches—at admission at this Academy, would develop a rate of growth greater than that of those who were of average height, or just below or above it.

From the figures presented it will be noticed that such, however, is not the case. Of the cases cited a trifle over 29 per cent do not show any change, while 60 per cent show a rate of growth that is smaller than that of the average growth of an average class.

Should these 58 young men have enjoyed the average growth of the entire class their height would average 64.84 inches, which is still nearly 4 inches less than that of an average cadet.

Very respectfully,

H. J. KOEHLER,  
*Captain, U. S. Army.*

THE PRESIDENT OF THE BOARD OF VISITORS,  
*West Point, N. Y.*

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#### APPENDIX D.

WEST POINT, N. Y., *June 12, 1905.*

SIR: In accordance with your directions, I have the honor to submit the following tables, showing some of the averages of the measurements of the class of 1905 at the time of admission, after the first year's training, and at the time of graduation. A table showing the strength tests taken at the periods mentioned above is also inclosed.

Very respectfully,

H. J. KOEHLER,  
*Captain, U. S. Army.*

THE PRESIDENT OF THE BOARD OF VISITORS,  
*West Point, N. Y.*

*Tables showing average measurements and strength tests.*

## AVERAGE MEASUREMENTS.

	At admission.	After first year.	At graduation.
Height .....	68.38	68.70	69.06
Weight .....	141.60	147.89	150.01
Chest:			
Normal .....	33.60	34.92	35.27
Inflated .....	35.88	37.40	37.84
Waist .....	28.23	28.40	28.46
Right upper arm .....	9.68	10.59	10.70
Set .....	11.29	12.31	12.48
Left upper arm .....	9.54	10.16	10.39
Set .....	11.05	12.00	12.34

## STRENGTH TESTS.

	At admission.	After first year.	At graduation.
Pull up .....	7.11	10.49	8.4
Dip .....	4.95	10.44	6.9
Right forearm .....	122.93	138.62	119.46
Left forearm .....	110.44	123.29	106.92
Back .....	347.68	427.41	367.44
Legs .....	478.83	620.32	533.06
Lung capacity .....	239.79	256.13	270.00

NOTE.—Pull up represents the number of times a cadet can pull himself up on the horizontal bar.  
Dip, the number of times he can raise his body, by bending his arms as low as possible and again extending them, on the parallel bars.  
Forearm tests are strength of grip.  
Back and leg tests show how many pounds a cadet can lift with his back or legs.

## REPORT OF THE COMMITTEE ON FISCAL AFFAIRS.

WEST POINT, N. Y., *June 10, 1905.*

SIR: Having given the time since the board convened to an investigation of the affairs of the Academy which might properly come under the scope of our committee, assisted in every way most cordially and actively by the Superintendent, Brig. Gen. A. L. Mills, Captain Franklin, Lieutenant Foy, and all other officers from whom we have sought information, your committee on fiscal affairs respectfully submit the following as their report:

Our range of inquiry has been wide and more general than particular, as the details of the fiscal organization of the Academy have been so carefully reported on by recent boards that we can really add nothing in the way of information which they have not set forth.

We have made a careful examination of the methods of accounting in all departments, and find an excellent system in vogue, carefully audited at regular intervals, and meriting in every way an expression of our entire confidence in their efficiency and accuracy.

The care taken in the award of contracts for the great improvements going on at the Academy seems to be ample, and the best interests of the Academy fully protected in every way.

The system of purchasing supplies, as managed by Captain Franklin, the commissary treasurer of the Academy, and quartermaster and commissary of cadets, meets with our entire approval. All matters coming under his supervision are carried on with admirable system and order, producing the best possible results at the minimum of cost.

Reference to the reports made by the fiscal committees of the boards



of 1903 and 1904 will give every detail regarding the pay of cadets, cost of living, and other expenses. These and other matters coming under the supervision of the committee were so thoroughly described in the reports made by the Superintendent and other officers to the boards named as to render it unnecessary for us to repeat the details to you.

Your committee were, however, impressed by the absolute order and system which prevails in Captain Franklin's department, as well as by the business transacted there in gross and detail. An annual turnover of \$300,000 in the cadet store, and financial transactions in this department aggregating \$1,000,000 necessarily involves a vast amount of labor and most careful supervision to insure such admirable results as are now obtained.

For the purpose of perpetuating the system and assuring its continuance, we would heartily recommend the detail of a competent officer as assistant to Captain Franklin in the administration of this department as a wise measure looking to the best interests of the Academy in the future.

Your committee were impressed with the admirable arrangements at the cadet mess hall and kitchen, and the excellent character of the food furnished.

The committee was also impressed by the care which is taken to make the cadets realize the importance of proper care of their personal finances. The practice and instruction in these matters can not fail to have the most salutary effect upon the cadets in their future careers.

So far as the fiscal administration of the post generally is concerned, its effect upon the discipline seems to be excellent in every way.

Respectfully submitted.

CHAS. F. BROOKER.  
WILLIAM F. PROSSER.  
JAMES L. SLAYDEN.  
WASHINGTON GARDNER.

Hon. FRANKLIN MURPHY,  
*President of the Board of Visitors.*

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#### REPORT OF THE COMMITTEE ON BUILDINGS AND GROUNDS.

SIR: Your committee on buildings and grounds beg leave to submit the following report:

The Spanish-American war renewed the interest of our people in military affairs. The increase of the Regular Army by the army reorganization act created a demand for more trained officers. To meet this demand Congress increased the number of cadets at the Academy fully 25 per cent. To accommodate this increased attendance there was submitted to Congress the necessity for making provision for increased facilities in the way of barracks, riding hall, gymnasium, post and cadet headquarters, hospital, mess room, academic, and other buildings. Some of the existing buildings were found to be incapable of successful enlargement, and others by reason of location would have to be displaced by newer and more modern buildings. Because of this consideration and inspired by a proper

sense of the importance of this institution and conscious of the excellence of its work during the last hundred years, the authorities here submitted to Congress in the winter of 1901-2 tentative plans and estimates for a general reorganization and enlargement of the buildings at West Point. These plans, according to Superintendent Mills, required that full provision be made for present requirements; that they should admit of extension in the future if ever necessary; that the most important of the old buildings be retained; that they harmonize with the physical situation of West Point, and finally that they be the most economical.

To carry out these plans, Congress was asked to appropriate \$6,500,000. After a thorough hearing before the House Committee on Military Affairs, this amount was recommended; but only \$5,500,000 was finally appropriated, as shown by the following quotation from the act approved June 28, 1902:

To increase the efficiency of the United States Military Academy at West Point, New York, and to provide for the enlargement of buildings and for other necessary works of improvement in connection therewith, and to provide for an increased water supply at a cost not to exceed one hundred thousand dollars, made necessary by the increased number of cadets now authorized by law, immediately available and to remain so until expended, two million dollars: *Provided*, That before any part of this amount is expended, except so much as may be necessary to provide an immediate increased water supply, to install a heating and lighting plant, and to complete the improvements begun on the cadet mess building, complete plans shall be prepared and approved by the Secretary of War, covering all necessary buildings and improvements at West Point, and for each and every purpose connected therewith, which plans shall involve a total expenditure of not more than five million five hundred thousand dollars, including the sum herein appropriated: *Provided further*, That after the preparation and approval of the plans herein provided, the Secretary of War is authorized to enter into a contract or contracts for any part or all of the improvements herein authorized within the said limits of cost, to be paid for from the appropriations annually made for this purpose: *Provided further*, That no money shall be expended or obligation incurred for architects after the plans for improvements above provided for have been approved by the Secretary of War, except that the Secretary of War is hereby authorized to employ, in his discretion, a consulting architect at a compensation not exceeding five thousand dollars per annum.

This prohibited actual construction work on all buildings and improvements, except as to the water supply, the heating and lighting plant, and the completion of the cadet mess building, until complete plans had been prepared and approved by the Secretary of War for all the buildings and improvements contemplated. This limitation of cost delayed work on some of the most necessary buildings, especially the cadet barracks, but this limitation was removed by the Military Academy appropriation bill approved April 28, 1904, which permitted the Secretary of War to proceed with the construction of such barracks and such buildings as would be needed to replace the buildings removed in such construction. Finally, by the act approved March 3, 1905, all limitations were removed, and the Secretary of War may now, after general plans have been prepared and have met with his approval, "within the limit of cost fixed proceed with their execution in such order as the detailed plans may be approved by him, and in such manner, by contract or otherwise, as he may see fit."

As a result of competition between ten leading firms of architects, the plans of Cram, Goodhue & Ferguson, of Boston, were adopted by the War Department upon the award of a jury appointed by the Secretary of War. During the last two years this firm has been engaged in working out detailed plans and specifications for the several build-

ings, so that at this time the following have been completed and approved by the Secretary of War:

- Cavalry and artillery barracks and stable.
- Artillery gun shed.
- Riding hall.
- Cadet headquarters and cadet store.
- Cadet barracks.
- Post headquarters.
- Quartermaster and commissary storehouse and shops.
- Guard and fire-engine house.
- Five triple sets of lieutenants' quarters.
- Two double sets of captains' quarters.

Plans for the new academic building are in the War Department awaiting the approval of the Secretary of War.

Plans for the following are well under way, and will soon be submitted by the architects:

- Chapel.
- Hotel.
- Post exchange.
- Gymnasium.
- Elevator.
- Bachelor officers' quarters and additional officers' quarters.

The above lists contain all of the important new buildings comprised in the general plans. For information as to the method employed in reaching a final conclusion on the plans and specifications of these several buildings, reference is made to the letter of the Superintendent to the president of the board under date of June 1, 1905, and herewith appended.<sup>a</sup>

Under the authority granted by the act approved March 3, 1905 (already quoted), the Secretary of War has allotted the \$5,500,000 appropriated by the act approved June 23, 1902, increased by the \$300,000 appropriated in 1904 for an increase of the water supply, making a grand total available of \$5,800,000, as follows:

Cadet barracks.....	\$275,000.00
Sixteen sets officers' quarters .....	180,000.00
Power house and distributing system .....	600,000.00
Roads, sewer, water, and gas, south end.....	75,000.00
South dock .....	25,000.00
Cavalry and artillery barracks, stables, and gun shed.....	404,880.00
One triple set lieutenants' quarters.....	30,000.00
Post headquarters .....	500,000.00
Chapel .....	300,000.00
Hotel .....	300,000.00
Removing and rebuilding present cadet chapel .....	20,000.00
Bachelor officers' quarters .....	100,000.00
Riding hall .....	695,000.00
Gymnasium .....	300,000.00
Academic building .....	600,000.00
Cadet headquarters and cadet store.....	275,000.00
Guardhouse and fire-engine house .....	63,000.00
Post exchange .....	50,000.00
Remodeling plumbing and heating system, present cadet barracks....	35,000.00
Grading, roads, walls, sewer, water, and gas .....	75,000.00
Increase of water supply.....	400,000.00
Allotments, fixed charges, fees, and salary for architects and consulting architect.....	487,904.60
<b>Total.....</b>	<b>5,790,784.60</b>

Under the above allotments work has already begun on the heating and lighting plant, and authority has been given to commence con-

<sup>a</sup>See page 13.

struction of additional cadet barracks and officers' quarters to replace those now occupying the site of the proposed barracks, work on which is to begin July 1, proximo, and is to be completed within fifteen months. It is expected that before the end of the present year the cavalry and artillery barracks and stables and gun shed and new south dock will be in process of construction; and contracts will have been let on the post headquarters building, the gymnasium, and bachelor officers' quarters. All of these buildings, with the exception of the cadet barracks, can be erected on sites at present unencumbered. As to the other important structures, the new will have to be erected before the old can be removed or demolished.

In making a careful examination of the proposed general plan, and after listening to interesting and valuable explanations from the Superintendent, Professor Larned, and others, and noting the segregations which Congress has made from the original appropriation for purposes not originally contemplated when the plans and estimates calling for \$6,500,000 were made, your committee has come to the conclusion that the original general plan can not be carried out in full within the estimate and amount appropriated by Congress.

As reason for this conclusion, it is to be remembered that the act of June 28, 1902, appropriated \$5,500,000 to carry out general plans for the enlargement of the Academy, but of this sum there was diverted the sum of \$246,000 for the following purposes: Water supply, \$100,000; completion of cadet mess hall, \$126,000, and for the purchase of the Dassouri tract, \$20,000. This sum of \$246,000 added to the \$1,000,000 reduction made by Congress in the original estimate makes a total of \$1,246,000. In other words, the authorities here and the Secretary of War have that much less amount with which to carry out the proposed improvements than the estimates of the original plan called for.

Your committee has further been informed, through the reports of the Superintendent and testimony given by him, that the completion of the working plans, since the first estimates of 1901-2 and the further development of the general plans, have enabled him to give more accurate figures of the total cost, the total figure being now placed at \$6,944,000 instead of \$6,500,000, as originally presented to Congress, making a further discrepancy of \$444,000 in the total estimate for the entire project.

Realizing the inadequacy of the existing appropriation for the carrying out of the complete general plan, the authorities of the Academy are making every effort to make the most possible out of the appropriation. The labor force on the reservation is being employed in quarrying the rock to be used in the various buildings. A rock of excellent quality is found in inexhaustible supply in close proximity to the proposed buildings, and a large amount is now ready for sale to the contractors. This home supply will obviate many uncertainties in actual construction work. There need be no delays because of poor transportation facilities, strikes, or other causes. The excavating for the new heating and lighting plant is being done by the authorities themselves and not by contract, resulting in a saving of over \$30,000. All the necessary roads have been built by the use of the post labor.

But, notwithstanding these and other economies practiced by the Superintendent and those under him, it is evident to your committee that the general plan as originally contemplated can not be carried out within the present appropriation. The argument has been made to your committee that unless the sum of \$1,246,000, increased by the

above sum of \$444,000, making a total of \$1,690,000, be given by Congress, a reallocation of sums planned for some of the more important buildings will be necessary, while others will have to be built as temporary or incomplete structures, or entirely abandoned.

The Superintendent has submitted to the committee a statement showing the improvements which, in his opinion and in the opinion of his advisers, could be made if the \$1,690,000 were added to the original sum of \$5,800,000 already appropriated. The list is hereto attached and marked "Appendix A." Should Congress not increase the appropriation by the amount he has recommended, he will be able to carry out only so much of the general plan originally contemplated as is set forth in the statement hereto attached and marked "Appendix B—first category." The construction of the buildings in the above category, in other words, would exhaust the present appropriation. The buildings and improvements which would be omitted should no increase of the appropriation be made by Congress are set forth in Appendix B, second and third categories.

To all of the above cogent arguments and considerations the committee has given careful consideration. In arriving at what it deems a wise and just conclusion, it has felt under considerable embarrassment. On the one hand there is the positive mandate of Congress limiting the cost of execution of the general plan for the enlargement of the Academy, "and for each and every purpose connected therewith," to the sum of \$5,800,000, including the water supply. On the other hand is the plain fact that all the improvements desired and thought necessary can not be made within the prescribed limit.

Furthermore, some of the contracts, especially those for new cadet barracks, officers' quarters, and heating and lighting plant, have already been let, and others are on the point of being let; and further, the desired increase of the appropriation by \$1,690,000 has already received the approval of the Secretary of War. Under these circumstances your committee, while feeling bound by the mandate of Congress in fixing the limit of cost in terms unmistakable, is nevertheless actuated by a desire to have as many improvements as possible made from the funds now available, and while it feels that some additional appropriation might reasonably be expected from Congress, it believes that curtailment of some of the allotments for buildings, not yet let to contract, may be made without serious damage to the architectural unity of the general plan, and with little or no loss to the needs of the Academy for years to come.

We therefore would respectfully suggest that instead of building the riding hall the full length of 600 feet, but half of it be built at a cost of about \$390,000. This curtailment alone will save \$300,000 for other buildings and yet furnish riding facilities far superior to those now enjoyed.

An allotment of \$500,000 for an administration or post headquarters building, in the opinion of your committee, could well be cut in half, and still leave sufficient funds for a slightly and commodious structure.

A reduction of \$100,000 from the allotment for the chapel and of a like amount for the hotel appeals strongly to your committee. Other reductions may be possible, but the above have met with indorsement.

The present gymnasium, which was constructed only a few years ago, cost \$100,000. The proposed plans provide for a gymnasium which will cost \$300,000, and under these plans the present gymnasium building will be demolished. The committee believes if the

walls of the present gymnasium are extended in the rear—which it is believed can be done at a cost not exceeding \$75,000—a suitable gymnasium in all respects will be provided.

While the general plan of improvements heretofore considered leaves little in existing buildings, or in those not to be disturbed, for consideration, nevertheless the committee begs leave to make the following recommendations:

#### LIBRARY.

Owing to recent improvements, the library, now containing about 65,000 volumes, is excellently housed. Under the efficient management of Doctor Holden, this library is fast becoming, from a military and historic standpoint, one of the richest in the country. It is being used more largely, and with increasing advantage, by the Corps of Cadets. The annual appropriation of \$10,000 for new books and publications is fast filling its shelves with good books. This library now contains one of the largest and most complete sets of Government publications extant, some 5,000 volumes now being stored away in the tower and attic. These books should be properly cared for, and to this end your committee recommends that iron flooring be placed in the tower and along the walls of the attic, and steel shelving and stacks be placed thereon, so that these books may become more accessible and all danger from fire obviated.

#### HOSPITAL.

A well-appointed and up-to-date hospital in an institution like this, where stress is laid on physical well-being and development, is a necessity. The main portion of the present hospital was built over twenty years ago. This portion, together with the north wing, has undergone some changes from time to time. The south wing is new and excellently equipped with well-lighted tiled wards, operating rooms, and other modern equipment.

After a thorough examination of this building, and from information given by Lieutenant-Colonel Perley, surgeon in charge, your committee begs leave to make the following recommendations: The iron staircases should be furnished with rubber treads, both to deaden noise and to render the footing more secure; suitable fire-escapes and standpipe should be attached to the building; porches should be erected along the north and south walls to permit patients to have access to the open air; the shaft passing from basement to attic should be fitted with an elevator, large enough to carry a patient on a cot or stretcher; the outer windows should be supplied with storm windows. As the first floor is many feet above the level of the sidewalk, and reached by a long flight of stone steps, difficult of access by one suffering from sprained or broken limb, it is thought wise to remove the small porch and stone steps in front of the building and construct a semicircular driveway or pathway from the street, passing immediately in front of what is now the basement door. A porte cochere could be constructed to supply the necessary architectural features. In this basement necessary reception and examination rooms could be arranged in addition to those on the first floor, so that patients coming on foot, or by ambulance, after examination, could be taken to the elevator and carried to any given ward floor.

An appropriation of \$2,500 is now being expended for a provisional contagious-disease hospital, located immediately back of the main hospital. Only eight or ten patients can be accommodated therein.

In cases of epidemics this small building will be totally inadequate. Up to the present, in cases of epidemics, such as measles, mumps, scarlet fever, etc., one of the wards has been given up to cadets thus afflicted. At times different epidemic diseases have been treated in this one ward at the same time. Realizing the rapidity with which such diseases can spread among cadets, closely housed together as they are, your committee believes that provision should soon be made for properly caring for a larger number of possible isolation cases.

#### WATER SUPPLY.

Owing to the liberal action of Congress in appropriating \$300,000, in addition to the sum of \$100,000 appropriated by the act of June 28, 1902, a large and inexhaustible supply of good water is soon to be available. The drainage basin of Popolopen Creek, which empties into the Hudson a little south of the reservation, covering about 28 square miles, will furnish the main supply. Under the direction of Major Patrick, the work on this much needed improvement has begun, the plan being to lead the water of this stream through a 20-inch main to Lusk Reservoir, a distance of about 7 miles. From this reservoir the water will pass through the existing filter beds. As the drainage area of Popolopen Creek is sparsely inhabited, there is little or no danger of surface contamination, and the supply will be sufficient for all the needs of the Academy, even in times of longest drought.

#### FORT PUTNAM.

In the last Academy appropriation bill \$5,000 was appropriated "toward the restoration of Fort Putnam." This sum is now being expended in opening and repairing the old Revolutionary road leading from Lusk Reservoir to the base of the fortification. This sum will be insufficient to restore the outer walls, now fast becoming obliterated. In view of the important position which Fort Putnam occupied in Revolutionary history, owing to its having been the key to the defenses of the Hudson River, and, through this river, to the west country, and in view of Washington's associations with it, your committee recommends a further appropriation by Congress to complete the work so auspiciously begun. The meccas of a nation's patriotism are worthy of preservation.

#### GROUNDS.

Much work of excellent and permanent character has been done in the building of roads on the reservation. With the annual appropriation made by Congress this line of improvement can be extended.

Upon the initiative of the Superintendent, and under the supervision of a competent expert, a scientific forestry plan has been devised and has met with the approval of the War Department. For the first ten years, by a judicious sale of full-grown trees, this work will be self-sustaining, and thereafter, it is expected, an annual revenue can be secured to the Government. When it is remembered that this reservation contains 2,500 acres, and that the present West Point Hotel was constructed out of funds derived from the sale of timber grown on these grounds, it is not too much to expect a reasonable return from the adoption of a practical system of forestry. Your committee commends this project, believing that it will not only bring financial returns ultimately, but will result in still further beautifying this reservation, and make it an object lesson in the art of peace as

well as in the art of war. This spot, which nature has made so beautiful, ought to merit in the future, as it has in the past, the considerate action of the Government.

Respectfully submitted.

JOHN J. ESCH.

C. A. CULBERSON.

G. LLOYD MAGRUDER, M. D.

Hon. FRANKLIN MURPHY,

*President of the Board of Visitors.*

APPENDIX A.—Statement covering cost of work of improvements at the United States Military Academy authorized by act of Congress approved June 28, 1902, showing estimated cost of work as planned, and estimated cost if reductions and omissions are made in certain buildings.

	As planned.	To be built.
Cadet barracks.....	\$330,000.00	\$275,000.00
Riding hall .....	695,000.00	695,000.00
Cadet headquarters and store.....	300,000.00	275,000.00
Cavalry barracks.....	110,000.00	100,000.00
Cavalry stables.....	132,600.00	100,000.00
Artillery barracks.....	100,900.00	90,000.00
Artillery stables.....	132,000.00	100,000.00
Artillery gun shed.....	14,880.00	14,880.00
Two double sets captains' quarters .....	60,000.00	60,000.00
Five triple sets lieutenants' quarters .....	150,000.00	150,000.00
Post headquarters.....	500,000.00	500,000.00
Academic building .....	600,000.00	600,000.00
Gymnasium.....	300,000.00	300,000.00
Chapel.....	300,000.00	300,000.00
Hotel.....	300,000.00	300,000.00
Bachelor officers' quarters.....	100,000.00	100,000.00
Post exchange .....	50,000.00	50,000.00
Quartermaster and commissary storehouse .....	300,000.00	300,000.00
Main guard and fire-engine house .....	63,000.00	63,000.00
Cadet laundry.....	50,000.00	50,000.00
Children's school.....	25,000.00	25,000.00
Quartermaster stable and wagon shed, etc.....	135,000.00	135,000.00
Public stable, near hotel.....	10,000.00	10,000.00
New south dock.....	25,000.00	25,000.00
South gate guardhouse.....	20,000.00	20,000.00
Elevator and gateway.....	100,000.00	100,000.00
Plumbing and heating repairs, present cadet barracks.....	35,000.00	35,000.00
Completion officers' mess.....	25,000.00	25,000.00
Enlargement band barracks and alterations to artillery barracks and post exchange .....	30,000.00	30,000.00
Remodeling quarters Nos. 27 and 29 .....	10,000.00	10,000.00
Removing cadet chapel.....	20,000.00	20,000.00
Enlarging water supply.....	400,000.00	400,000.00
Power house (heating and lighting plant).....	600,000.00	600,000.00
Fixed charges, allotments, etc.....	487,904.60	487,904.60
Two double sets captains' quarters .....	45,000.00	45,000.00
Three sets majors' quarters.....	45,000.00	45,000.00
Railroad freight shed, dock, and cable way .....	115,000.00	115,000.00
Superintendent and staff officers' quarters .....	100,000.00	100,000.00
Remodeling engineers' barracks.....	10,000.00	10,000.00
Special fittings for new academic building.....	50,000.00	50,000.00
Furniture for post headquarters.....	10,000.00	10,000.00
Furniture for cadet headquarters.....	5,000.00	5,000.00
Alterations to present Academy building .....	30,000.00	30,000.00
Army service barracks.....	125,000.00	125,000.00
Memorial bridge.....	50,000.00	50,000.00
Two cadet battalion headquarters.....	40,000.00	40,000.00
Enlisted men's quarters, south end.....	50,000.00	50,000.00
Noncommissioned staff officers' quarters .....	20,000.00	20,000.00
Grading, walls, roads, sewer, water, and gas.....	275,000.00	275,000.00
Contingencies .....	179,215.40	179,215.40
Total.....	7,665,500.00	7,500,000.00
Deduct contingencies.....	179,215.40	
Total.....	7,486,284.60	

The total reductions in cost of buildings, as shown in second column, amount to \$165,500.



APPENDIX B.—*Building schedule for improvements at the United States Military Academy, authorized by act of Congress of June 28, 1902.*

## FIRST CATEGORY.

Cadet barracks.....	\$275,000.00	
Sixteen sets officers' quarters.....	180,000.00	
Power house and distributing system.....	600,000.00	
Roads, sewer, water, and gas, south end.....	75,000.00	
South dock.....	25,000.00	
Cavalry and artillery barracks, stables, and gun shed..	404,880.00	
One triple set lieutenants' quarters.....	30,000.00	
Post headquarters.....	500,000.00	
Chapel.....	300,000.00	
Hotel.....	300,000.00	
Removing and rebuilding present cadet chapel.....	20,000.00	
Bachelor officers' quarters.....	100,000.00	
Riding hall.....	695,000.00	
Academic building.....	600,000.00	
Gymnasium.....	300,000.00	
Cadet headquarters and cadet store.....	275,000.00	
Guardhouse and fire-engine house.....	63,000.00	
Post exchange.....	50,000.00	
Remodeling plumbing and heating system, present cadet barracks.....	35,000.00	
Grading, roads, walls, sewer, water, and gas.....	75,000.00	
Increase of water supply.....	400,000.00	
Allotments, fixed charges, fees, and salary for architects and consulting architect.....	487,904.60	
		\$5,790,784.60
Appropriation.....	5,790,784.60	
	5,800,000.00	
Balance.....	9,215.40	

## SECOND CATEGORY.

Quartermaster and commissary storehouse.....	\$300,000.00	
Quartermaster stables and wagon shed.....	135,000.00	
Cadet laundry.....	50,000.00	
Two double sets captains' quarters.....	50,000.00	
Three majors' quarters.....	45,000.00	
Completion officers' mess.....	25,000.00	
Enlargement band barracks and remodeling present artillery barracks and post exchange.....	30,000.00	
Post school for children.....	25,000.00	
Public stable.....	10,000.00	
South gate guardhouse.....	20,000.00	
Elevator and gateway.....	100,000.00	
Remodeling officers' quarters Nos. 27 and 29, for one professor.....	10,000.00	
Railroad freight shed, dock, and cableway.....	115,000.00	
Superintendent's and staff officers' quarters.....	100,000.00	
Remodeling engineer barracks.....	10,000.00	
Special fittings for new academic building.....	50,000.00	
Furniture for post headquarters.....	10,000.00	
Furniture for cadet headquarters.....	5,000.00	
Roads, retaining walls, water, sewer, and gas.....	50,000.00	
		1,140,000.00
		6,930,784.60

## THIRD CATEGORY.

Alterations to present academic building .....	\$30,000.00	
Army service barracks .....	125,000.00	
Memorial bridge .....	50,000.00	
Two cadet battalion headquarters .....	40,000.00	
Twenty sets quarters for enlisted men .....	50,000.00	
Noncommissioned staff officers' quarters .....	20,000.00	
Roads, retaining walls, walks, sewer, water, and gas...	75,000.00	
		\$390,000.00
Total .....		7,320,784.60
Contingencies, such as salaries of inspectors of work, administrative or office force, advertising, wiring of retained existing buildings for electric light and fixtures, demolition of old buildings, etc .....		179,215.40
Grand total .....		7,500,000.00

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**REPORT OF THE COMMITTEE ON INSTRUCTION, DISCIPLINE,  
AND HYGIENE.**

WEST POINT, N. Y., *June 10, 1905.*

SIR: Your committee, to whom was referred the various matters included under the head of instruction, discipline, and hygiene, report as follows:

First. We have given to the investigation of these matters such time and attention as have been allowed us, and as a result of these investigations we unhesitatingly declare that at no time since this Military Academy was established have instruction and discipline been more efficiently and satisfactorily conducted than during the past year by the present administration. The progress made by all the classes has been eminently gratifying in all the studies in which they have been engaged.

We also commend the present administration for the high state of discipline which has been maintained at the Academy during the past year. We also commend the present graduating class for the part it has taken in bringing about this satisfactory state of affairs. That the practice of "hazing" has been abolished is largely due to the efforts of this graduating class, and it is hoped that this objectionable practice will not again be revived.

Second. Your committee believes that the regulation exempting from examination students who have been proficient in their work throughout the year has proved of great value, because of the effect it has in stimulating students to keep up a high standard throughout the entire year. This is borne out by the statements of different professors in regard to the present graduating class.

**ATHLETICS.**

The study and practice of athletics and calisthenics have of late years reached a degree of development never before attained at West Point and rarely, if ever, reached in any country in the world. We consider proficiency in these exercises to be of inestimable value in the physical, moral, and intellectual life of the cadet. In the proper discharge of his military duties as well as in his mental work, which

requires a sound mind in a sound body, muscular development is of prime importance. The Corps of Cadets is fortunate in having as its instructor Capt. Herman J. Koehler, whose services in this particular line for many years we consider worthy of special mention.

We cordially approve of the action which has already been taken by the academic board in extending the course in athletics at the Academy—which is now confined to the fourth class—to the first, second, and third classes, to the extent of about three sessions per week, in order that the men may complete their course of instruction here in as good physical condition as they were at the completion of their first year.

During the coming year two assistants have been appointed to Captain Koehler, one for fencing and one for boxing and wrestling, and we recommend that a third assistant be allowed for general athletics and swimming. The committee considers this force none too large for the varied duties and exercises coming under this head, more particularly in view of the fact that a large amount of individual and personal attention must be given to the training of each cadet.

#### INSTRUCTION IN LATIN.

The committee desires to express the opinion that a knowledge of Latin is very important to the graduates of the Academy, and would be gratified if Latin were either included in the course of instruction or reasonable proficiency therein be required of applicants.

#### CURRICULUM AND MILITARY HYGIENE.

In view of the fact that the academic board has now under consideration a careful and thorough revision of its curriculum, we have not deemed it advisable to go into any elaborate investigation of this subject. During the coming year it is expected that the academic board will make a full report in regard thereto. Your committee would, however, recommend that a course in military hygiene be established as a part of the curriculum, in addition to the lectures as at present, to be taught by text-book; and that the cadets be required to stand examination and be marked on this course. It seems advisable to the Board of Visitors that this course in military hygiene might readily be given to the first class during the first class camp.

To carry out the above course successfully, it is recommended that the senior surgeon be made a member of the academic board. This seems advisable, as, in addition to being able to decide as to the physical and mental capacity of the cadets, the presence of the surgeon upon the board would prove of great value in giving opinions upon many subjects that must necessarily come before the board.

To increase the efficiency of cavalry instruction at the post the committee recommends that a master of the horse or similar officer should be appointed, whose tenure of office shall be subject to the will of the Superintendent and who should be properly qualified to teach horsemanship in all its various details. Such an officer would be constantly at hand and would be familiar with the traits and characteristics of the horses at the post, thus saving much valuable time in selecting proper mounts for the various classes.

## COMMON SCHOOL EDUCATION AT WEST POINT.

Your committee would reiterate the recommendation heretofore made that the Government employ civilian teachers for the necessary public schools on the reservation at West Point, instead of detailing soldiers and noncommissioned officers from the regular service for that purpose, as at present.

## PHYSICAL REQUIREMENTS.

In view of the fact that it is highly desirable and important that the best practical results should be secured by the Government from the education of the cadets at West Point—which is now only obtained at large expense—your committee has, with considerable effort of time and labor investigated the physical requirements now enforced in the selection and admission of cadets. We believe that greater limitations should be placed upon admission to this Academy, and that improved efficiency and usefulness would be secured if the minimum height of 5 feet 3 inches, at the minimum age of 17 years, should be increased with a corresponding increase in weight and chest measurement. This minimum of height and weight should be increased with increase of age.

## HOSPITAL SERVICE.

We have noticed frequent changes among the surgeons and assistant surgeons, and even among the hospital attendants. In the last seven years, we have been informed, there have been nine senior surgeons detailed for duty at this place. Notwithstanding these brief details in the medical department, the results obtained have been markedly successful. With a longer tenure of office there is no doubt that even better results could be secured. This would enable a medical officer to inaugurate and carry to a successful issue lines of policy looking to the welfare of the institution.

The details for four years in other departments have proved most satisfactory. In many of the other departments subordinates have grown old in the discharge of their respective duties and their efficiency has thereby been greatly increased. It would seem to your committee that if the same beneficial policy were followed in the hospital service the same results might be secured.

## CONCLUSION.

It is a matter of profound satisfaction to every patriotic citizen of the United States that a general and comprehensive system of improvement of the buildings and grounds at West Point has been adopted in recent years. Appropriations have been made therefor by Congress amounting to \$5,800,000, and the construction of some of the buildings has already been commenced. With the completion of this system of improvements the facilities for the instruction of the cadets and their care in sickness and in health will be largely increased. To those who know what has already been accomplished by and through the West Point Military Academy these facts are gratifying in the highest degree.

The history of West Point forms no inconsiderable part of the history of our country. From our knowledge and observations as to its



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**REPORT OF THE SUPERINTENDENT OF THE  
UNITED STATES MILITARY ACADEMY.**

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## REPORT OF THE SUPERINTENDENT OF THE UNITED STATES MILITARY ACADEMY.

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HEADQUARTERS UNITED STATES MILITARY ACADEMY,  
*West Point, N. Y., September 14, 1905.*

SIR: I have the honor to submit the following report of the Military Academy for the year ending August 31, 1905:

I have performed the duties of Superintendent throughout the year, except when on leave from July 7 to July 14, and from August 12 to August 27, and except for other short periods of time when absent in connection with the affairs of the academy, or on other duties.

### PERSONNEL.

The number of officers and instructors assigned to duty here September 1, 1905, was 7 professors, 2 associate professors, 80 commissioned officers, 1 librarian, 1 chaplain, 1 contract dental surgeon, 1 teacher of music, and 4 civilian instructors in languages, a total of 97. Of this total 1 professor is on detached service and 1 officer is at the general hospital, Fort Bayard, N. Mex., undergoing treatment and is not expected to return to duty this year. In addition, there were present 2 officers on temporary duty and 2 civilians employed as instructors in fencing, broadsword exercise, and other military gymnastics.

The total for duty September 1, 1904, was 94, the difference in the totals between this year and last being accounted for by an increase of 1 associate professor, 1 officer as assistant to the officer in charge of construction, and 1 civilian instructor in French.

Lieut. Col. Charles P. Echols, professor of mathematics, was detailed under the provisions of paragraph 3 of the Regulations for the Military Academy, to perform for a period of one year, beginning July 1, 1905, duties of observation, study, and investigation of scientific and educational work in other institutions. Professor Echols sailed for Europe in July and intends to visit important schools abroad for the greater part of the coming year.

The tour of duty of Lieut. Col. Charles G. Treat, commandant of cadets, expired June 15, on which date he was relieved and his duties were assumed by his successor, Lieut. Col. Robert L. Howze, captain, Sixth Cavalry. The existing very satisfactory financial condition of cadets, their military efficiency, their ideas of duty and manliness, and their excellent attitude toward their obligations are in a large measure the result of the very zealous efforts and personal example of Colonel Treat.

The accompanying roster (Appendix A)<sup>a</sup> gives the names of all officers and shows the particular duties they perform.

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<sup>a</sup> Omitted.



The maximum number of cadets is 522, not including 1 cadet reinstated by special act of Congress and 5 foreign cadets receiving instruction under the provisions of joint resolutions of Congress—1 from Costa Rica, 1 from Nicaragua, 1 from Ecuador, and 2 from China. The academic year opened with 469 cadets on the rolls of the academy, divided among the four classes as follows:

First class.....	79
Second class.....	114
Third class.....	119
Fourth class.....	157

The number of cadets discharged, resigned, and graduated during the year is as follows:

Discharged for deficiency in studies.....	24
Discharged for deficiency in conduct.....	1
Discharged for physical disability.....	3
Resigned.....	19
Graduated.....	114

Total.....	161
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The usual examination of candidates for admission was held at various army posts beginning May 1. For this examination there were appointed 368 candidates, including principals and alternates, and including also 3 former cadets. Of this number 79 failed to report, 18 failed to complete the examination, 28 were rejected by the medical boards, being qualified mentally; 51 were rejected upon the mental examination, being qualified physically; 1 declined on account of sickness, and 14 were rejected both mentally and physically. There were no vacancies for 41 qualified alternates.

Admissions were as follows: In June, 145; in July, 1, and in August, 3—a total of 149. The following table gives the number of those admitted on examination, on certificate, etc.:

Admitted on certificate (90 principals and 12 alternates).....	102
Admitted on examination (30 principals and 9 alternates).....	39
Former cadets taking physical examination only.....	4
Foreign cadets.....	4

Total.....	149
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#### HEALTH.

The report of the surgeon is herewith appended, marked "Appendix B."<sup>a</sup> It shows that the health of the command generally has continued excellent throughout the year. Serious fevers and contagious diseases have been absent, except for the measles and mumps, both of which existed for a time in the corps of cadets and in the families of enlisted men. Experienced medical officers of the command have given watchful attention to all parts of the post in order to prevent the existence of any unsanitary conditions. This has been especially necessary on account of the building work in progress, which has brought a large number of laborers to the vicinity.

Favorable action was taken last year upon the estimate submitted for the erection of a temporary infectious-disease building, and it is now nearly completed. Eventually, it is the intention to convert the present bachelor-officers' quarters, located near the hospital, into a contagious ward.

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<sup>a</sup> Omitted.

## CADET ALLOWANCES AND SUPPLIES.

The attached report of the treasurer and quartermaster and commissary of cadets (Appendix C)<sup>a</sup> gives in detail the operation of the departments relating to the pay and accounts of cadets, and charged with their messing and the procurement and furnishing of the supplies of all kinds which they require.

The supplies furnished during the past year have been kept up to the usual high standard, and the food provided has been abundant in quantity, excellent in quality and variety, and well prepared and served. It is especially gratifying to call attention to the financial condition of cadets. On the settlement of April 30, 1905, a proper one from which to judge, 392 were shown to be out of debt, to an amount averaging \$41.88 per cadet, while but 57 were in debt, to an average amount of but \$13.49. This is a most excellent showing, and a condition brought about by the measures taken by the commandant of cadets to enforce cadets to be economical in their requisitions and by the able manner in which the supply department has been managed by the quartermaster and commissary of cadets, who has effected great economy in the conduct of every line of his business. This showing has been reached also, notwithstanding greater liberality during the year than heretofore, in permitting purchases by cadets of athletic goods, confectionery, photographs, newspapers, and magazines; in their contributions to the various athletic, dialectic, and Young Men's Christian Association funds, and in the amount of cash advanced to them while on leave of absence. During the past year also the large amount of \$9.50 per month has been credited to the equipment fund of each cadet.

Altogether, I believe the financial condition of cadets at the present time is the best in the history of the academy.

## DISCIPLINE.

In the battalion of cadets, conditions as to discipline, military bearing, and soldierly conduct are excellent and very satisfactory. Hazing in any form has shown no symptom of reappearing. The treatment of new cadets by cadets of the upper classes has been on the lines which regulations and orders seek to attain. This is true not only as to the relations between the classes when off duty, but also when on duty. The instruction of the fourth class by the cadets of the first and third classes during the summer months was marked by an absence of harshness, which was very gratifying to witness. The efforts in this direction of Capt. R. C. Davis, Seventeenth Infantry, who, under the supervision of the commandant of cadets, had direct charge of the new class, are worthy of special commendation.

With the object of furthering the policy of the Military Academy to intrust to its undergraduates in great measure the maintenance of honor and truthfulness, cadets have been informed that they will be considered on honor when in the section room to receive no information concerning their recitations or lessons from any unauthorized source whatever, and that the preparation of a subject or recitation at the blackboard, or the submission of a written recitation, whether signed or not, will be accepted without question as the individual

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<sup>a</sup> Omitted.

work of the cadet preparing or submitting it. Although this policy may be said to have existed to a greater or less extent heretofore, it was deemed wise to enunciate it in unequivocal terms.

#### PRACTICAL MILITARY INSTRUCTION.

The appended reports of the commandant of cadets (Appendix D)<sup>a</sup> and of the instructor of practical military engineering (Appendix E)<sup>a</sup> give in detail the work done in their respective departments during the past year. The usual visits by the first class to Gettysburg, Watervliet, Sandy Hook, and Fort Totten were again made. Lieut. Col. Arthur Murray, Artillery Corps, by his hearty cooperation and assistance made the three days at Fort Totten a valuable part of the education and instruction of cadets. I believe the time spent by the first class at this fort, if it will interfere in no way with the work of the school of submarine defense or the garrison, might with advantage be extended. The second class visited the Metropolitan Museum of Art in New York City at their own expense, as usual.

As a culmination of the practical work of the summer the classes present, accompanied by the detachment of artillery and a part of the detachment of cavalry, under the command of the commandant of cadets, made a practice march on the east side of the Hudson River from August 19 to 23, inclusive. The command was fully equipped for the field, and, except for slight additions to the ration, the march was made under service conditions. Each day a problem was worked out, the force being divided for this purpose into two units, one for attack and the other for defense. The actual work of pitching tents, preparing food, etc., was performed by the cadets, assisted by one enlisted man detailed for each company as cook. The completion of the practical work of the summer by this real test adds much to the value of the training given cadets. Intelligent interest in the work was shown by all concerned, and its inception and successful accomplishment are due to the energy of the commandant of cadets.

A cadet rifle team, composed of 12 principals and 3 alternates, represented the Military Academy at the competition for the national trophy for excellence in marksmanship at Sea Girt, N. J., from August 18 to 31. The question as to the practicability of cadets engaging in this contest had previously been referred to me by the Secretary of War and had received my cordial approval. The team sent acquitted itself with credit and took a good standing among the other teams engaged, considering the character of the latter and the opportunities and time the members of the cadet team had for preparation. I regret to report, however, after experiencing the difficulties encountered in sending the team, that a future representation of cadets in this contest will not be advisable. To fairly prepare a cadet team, time and opportunity for much practice are required, and this necessarily interferes with the other work of cadets, which the gain in marksmanship to the individual cadets participating does not offset. The preparation also seriously interfered with the general instruction of other cadets in target practice, and the team missed the valuable experience of the practice march which the remainder of the battalion participated in. The time of cadets is so limited and so fully occupied

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<sup>a</sup> Omitted.

that the very best that can be done is to give general instruction in target practice to all, making them conversant with its procedure, methods, and principles, and not expecting to produce expert shots, which takes great time and is really post-graduate work.

I regret to take a step which may in the slightest detract from or fail to stimulate the increasing interest throughout the country in the important subject of marksmanship.

The corps of cadets participated in the parade on the occasion of the inauguration of the President of the United States on March 4 last, appearing in the procession organized as a battalion of infantry, a troop of cavalry, a battery of field artillery, and a platoon of mountain artillery carried on pack mules. The bearing of the cadets on this occasion, both when in and out of ranks, evoked favorable comment from many observers.

At the request of the National Guard authorities of the State of New York the Military Academy detachment of engineers, under command of Maj. Mason M. Patrick and Lieut. Michael J. McDonough, Corps of Engineers, went to Peekskill, N. Y., during the week ending June 24, to assist in the instruction of the Twenty-second Regiment, National Guard, State of New York.

#### ACADEMIC INSTRUCTION.

The proficiency of cadets in various classes and the character of instruction they have received throughout the year have been satisfactory, with a single exception. In the third class in the department of mathematics the results of the course in descriptive and solid geometry were not satisfactory, in that an unusual number of cadets came to the examination deficient in these important studies. Careful inquiry was made into the matter and it is believed, with changes already made and proposed, the conditions above referred to will be corrected.

The good results attained in academic work are due in no small part to the fact that the War Department has unhesitatingly acquiesced in the wishes of the heads of the various departments as to the officers to be detailed as instructors. I would renew the recommendation made in my report of last year that all instructors at the academy be made members of the detailed staff, appointments thereto causing vacancies in the branches of the service at large to be filled by the regular order of promotion, the same as in the details to the staff departments at the present time. I am firmly convinced of the expediency and desirability of the detail system as it applies to the academy. It even appears to me that one position on the academic board, now permanent, may with advantage at some time in the future be filled by detail. It may be advisable to retain as permanent positions the heads of the departments of natural and experimental philosophy; chemistry, mineralogy, and geology; modern languages; mathematics, and drawing; but in the department of civil and military engineering the character of instruction which it is desirable cadets should receive is changing from year to year; and the practical needs of the academy and its students would, I believe, in the end be better subserved by making the head of this department an officer of the Engineer Corps of the Army, detailed as is the head of the department of ordnance and gunnery.

The objections to the system where the details do not result in vacancies in the line are manifest. An officer having served a tour

of duty at the academy frequently feels that he is looked upon in his regiment or corps as having had his full share of benefits resulting from a good station, pleasant work, and a leave of absence during the summer months of each year. He dislikes to receive the criticism which he feels he may incur by the acceptance of a second tour of duty at the academy. If he leaves his regiment his work must be performed by some one else who is, perhaps, already overburdened with duties. On the other hand, from the standpoint of the welfare of the academy, it is important that a number of officers should have two or more tours of duty here as instructors. A large part of the value of an officer to a department of instruction depends upon the previous experience which the officer has had in performing the duties of an instructor. It should, therefore, instead of being a matter of criticism, be a matter of course and a matter of pride for an officer to return to the academy after having completed one tour of duty, and especially so as the duty, when conscientiously performed, is most exacting, confining, and responsible, and by no means easy, as unfortunately some persons, without sufficient consideration of its character and requirement, seem prone to regard it and to refer to it. Again, application for the relief of an officer while he is serving at the academy and objections to his being detailed for duty here are matters of not infrequent occurrence, coming from the commanding officers of regiments and posts. These objections are natural and reasonable from the standpoint of the officers making them whose first and natural care is and should be the efficiency of the organizations which they command. Should the detail make a vacancy to be filled by an officer qualified to perform the duties of the one absent from his regiment, these objections would disappear.

The Military Academy is certainly a factor in the Army of equal importance to the staff departments, and it may be justly said that it is discriminated against in the method of detail of instructors when details to the staff departments create vacancies while details to the academy do not. I earnestly recommend that the attention of Congress be asked to this question and that a measure providing for relief from these conditions be urged.

The academic board has expressed its unanimous opinion to the effect that an examination of the present course of studies is advisable with a view to its revision. This examination is now in progress, and it is hoped that it will result in the adaptation of each course to the present needs of the service and in a better coordination of the courses themselves. It is thought that in some cases unnecessary requirements are now made of the graduate. If the investigation shows that no omission in any course is practicable, other measures of relief must be instituted, such as the raising of the entrance requirements; for it is recognized by close observers that the present curriculum is overloaded for the length of the course. There are those qualified to judge who are of the opinion that the course should be extended from four years to five years. Personally, I can not agree with this opinion, believing that relief can be obtained in a different way; but the result of the careful and earnest scrutiny to which the curriculum is now being subjected should throw much light upon this whole question.

Minor changes in the matter of hours of recitation were put into effect on the 1st of September, in order to determine whether or not the changes would be satisfactory to accomplish certain ends recog-

nized by all to be desirable. The objects were in the main to reduce the time between dinner and breakfast, to provide for extending the course in physical training throughout the four years, and to provide proper time for practice and athletics. It has also been decided during the current academic year not to publish the daily marks which cadets receive for their recitations. A cadet who is deficient in his studies will be notified of the fact. The object of this action is to ascertain if it will have any effect in convincing the student that his lesson should be studied not with the sole view of making a good recitation and receiving a good mark, but with the idea of a complete and thorough understanding of the subject. Other minor changes in methods heretofore followed, one of which is not marking fourth classmen in mathematics except on the reviews, will also be tried during the year and carefully observed with a view to their permanent adoption if they are found to be advisable.

I am disappointed that it has not seemed practicable to extend the course in French and Spanish to the first and second classes during the present year. I am convinced, however, that this change will come in the near future, and that it will be of distinct advantage to every cadet who graduates from the academy. Under the authority contained in the last Military Academy appropriation bill, an additional civilian instructor in French has been employed, so that the institution now has two civilian instructors in French and two in Spanish. The services of these instructors have proved of exceptional value in the department of modern languages, not only in the direct instruction of cadets, but also in the assistance and instruction which the civilians give to the officers who are instructors in that department.

The report of the instructor of ordnance and gunnery is inclosed (Appendix F).<sup>a</sup> In the estimates an item has been submitted recommending that the head of this department be given the title of professor and the rank, pay, and allowances of a lieutenant-colonel. The reasons for this are set forth in a letter which was addressed to the Board of Visitors, a copy of which is inclosed (Appendix G).<sup>a</sup>

#### THE LIBRARY.

The accompanying report of the librarian (Appendix H)<sup>a</sup> gives briefly the work which has been accomplished during the past year in the library. The liberal support of Congress to this department is still continued, and its importance and value to the institution as an educational aid are being rapidly increased under the able management of the librarian, Doctor Holden.

#### THE WATER SUPPLY.

Attention is invited to the report of the officer in charge of the water supply of the academy (Appendix I).<sup>a</sup> Practically all of the necessary land, rights of way, and water rights for the new source of supply have been secured, and the execution of the project is well under way. An ample quantity of water for all of the uses of the Military Academy is now insured for an indefinite period. The cost of this improvement will be well within the limit of the appropriation.

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<sup>a</sup> Omitted.

## BUILDINGS AND GROUNDS.

The report of the quartermaster (Appendix J),<sup>a</sup> to which attention is invited, gives in detail the work accomplished and improvements made during the year.

The execution of the project for increasing the efficiency of the academy, for the enlargement of buildings, and for other necessary works of improvement, provided for in the act approved June 28, 1902, may be said to be well started. For over two years the firm of architects, Messrs. Cram, Goodhue & Ferguson, of Boston, Mass., who won the competition, have been continuously at work preparing detailed plans and specifications for the new buildings. The plans for the following have been completed and approved by the Secretary of War: Cavalry and artillery barracks and stables, artillery gun shed, riding hall, cadet headquarters and cadet store, cadet barracks, post headquarters, quartermaster and commissary storehouse and shops, guard and fire-engine house, academic building, 5 triple sets of lieutenants' quarters, and 2 double sets of captains' quarters.

Plans for the following buildings are under way and will soon be submitted by the architects: Chapel, hotel, post exchange, gymnasium, bachelor officers' quarters, additional officers' quarters, and elevator.

When these are received the academy will be in possession of detailed plans and specifications for all of the important new buildings comprised in the present scheme of improvement, as shown on the general plan, which was approved by the Secretary of War January 27, 1904.

It may be of interest at the present time to trace briefly the progress which has been made upon this work since the date of the passage of the act.

On July 12, 1902, a board of officers, consisting of the professor of drawing, professor of chemistry, professor of civil and military engineering, professor of mathematics, and the instructor of ordnance and gunnery, was convened to assist the Superintendent, whenever required, in carrying out the provisions of the act for the improvements at the Military Academy. To this board the professor of modern languages was added on July 24, 1902. The board, since its inauguration, has been termed the advisory board, and its duties, specified in the order convening it, were briefly as follows:

1. To make a thorough and complete investigation of the existing plant of the academy and, considering present requirements and possible future expansion, to report to the Superintendent what new buildings, what additions to the existing buildings, and what other necessary improvements (exclusive of the increased water supply) were needed for the complete plan of enlargement.

2. After the approval of the general plan the function of the board was to act in a capacity advisory to the Superintendent during the preparation of the complete plan, including the detailed plans of the separate buildings.

The report of the board under the first head was submitted October 1, 1902. In forwarding the report it was recommended:

That the architects who may be invited by the Secretary of War to submit competitive plans for the new improvements, while keeping in mind the present somewhat crowded condition of the area of the cadet barracks and of the vicinity of the academic building, be given the freest scope in making their studies without regard

<sup>a</sup> Omitted.

to the plans, or to the particular location recommended by the members of the board for the new barracks, the new academic building, and the chapel, and with only the limitations that the plan as it now exists must be kept intact for infantry instruction and ceremonies, and that the buildings which cadets habitually occupy should be located, generally speaking, as close together as all the conditions will permit.

This report of the advisory board proved to be of valuable assistance to the competing architects in the preparation of their studies.

In making the award among the competitors a jury, consisting of Lieut. Gen. John M. Schofield, U. S. Army (retired), who is a former Superintendent of the academy; Col. A. L. Mills, Superintendent; Walter Cook, George B. Post, and Cass Gilbert, who are eminent architects, was appointed by the Secretary of War to advise him in the matter. After an examination of all the plans and consideration of the report of the jury, Hon. Elihu Root, then Secretary of War, made the award to the firm of architects above mentioned—Messrs. Cram, Goodhue & Ferguson, of Boston.

Steps were immediately taken to proceed with the development of the preliminary study. The architects were in the first place furnished with the general requirements of each of the buildings to be erected, further details being given than were contained in the preliminary report of the advisory board. One or more of the members of the firm of architects made extended visits to the academy and studied existing conditions. Based upon the information obtained, the architects drew up and submitted sketch plans for each floor of each of the buildings. The sketch plans were then referred to the advisory board, the members of which were thoroughly conversant with the functions to which each building was to be put and with its relations to the other buildings on the post. Other officers having special interest or knowledge concerning a particular building were directed to confer from time to time with the advisory board, as well as with the Superintendent in his consideration of the sketch plans. The Superintendent had also the advice of an able officer of the Quartermaster's Department to aid in this work. In each case the criticisms and recommendations of the advisory board were embodied in a written report made to the Superintendent. This procedure, while involving a great amount of work, proved itself to be of value in more than one instance, as it would have been otherwise impossible to give proper weight to the various views expressed by the board, the architects, and others upon many perplexing and some vexatious questions. In many cases the study of the sketch plans occupied a period of months, during which they were several times returned to the architects for alterations or replanning. As a rule the architects, the advisory board, the constructing quartermaster, and the Superintendent all agreed upon the final form of the sketch plans. In instances where one or more of these parties dissented from the adopted plan, a full discussion of the questions at issue was had and the final decision was based upon what seemed to be satisfactory arguments. Upon the approval of satisfactory sketch plans the architects have proceeded with their development into the final plans. During this stage of the work it has been subjected to the most careful scrutiny by the constructing quartermaster. In the matter of the elevations of the buildings the architects have been unhampered except in a few instances where questions of utility or economy of construction have dictated certain deviations



from their ideas. The final plans and specifications have been forwarded to the War Department for the action of the Secretary of War.

To complete the general plan, as it stands approved by the Secretary of War, will, it is estimated, cost \$7,500,000. The appropriations provide a total of \$5,800,000 for this purpose. In the year of the passage of the first act (1902) the Military Committee of the House of Representatives, after an exhaustive hearing into the details of the estimates, and following a visit of inquiry to West Point by a joint committee of its members and members of the Military Affairs Committee of the Senate, unanimously reported a bill carrying the full amount of the original estimate, \$6,500,000. The House in the closing day of its session, with little or no debate on the merits of the bill, reduced the amount to that which was finally appropriated. The Senate restored the original amount, but in conference it was again reduced. Since that time \$546,000 of the total appropriation has been diverted, by direction of Congress, for projects not included in the original estimate. Adding this \$546,000 to the amount of the original estimate, \$6,500,000, gives a total of \$7,046,000, showing that the original amount asked for is but \$454,000 short of \$7,500,000, the amount actually necessary to complete all of the improvements indicated on the general plan. In a work of this magnitude a more nearly correct original estimate could not be expected.

As under the present appropriation all of the improvements can not be completed, they were divided into the following three categories, arranged in order of importance:

First category:

Cadet barracks .....	\$275,000.00	
Sixteen sets officers' quarters .....	180,000.00	
Power house and distributing system .....	600,000.00	
Roads, sewer, water, and gas, south end .....	75,000.00	
South dock .....	25,000.00	
Cavalry and artillery barracks, stables, and gun shed .....	404,880.00	
One triple set lieutenants' quarters .....	30,000.00	
Post headquarters .....	500,000.00	
Chapel .....	300,000.00	
Hotel .....	300,000.00	
Removing and rebuilding present cadet chapel .....	20,000.00	
Bachelor officers' quarters .....	100,000.00	
Riding hall .....	695,000.00	
Academic building .....	600,000.00	
Gymnasium .....	300,000.00	
Cadet headquarters and cadet store .....	275,000.00	
Guardhouse and fire-engine house .....	63,000.00	
Post exchange .....	50,000.00	
Remodeling plumbing and heating system, present cadet barracks .....	35,000.00	
Grading, roads, walls, sewer, water, and gas .....	75,000.00	
Increase of water supply .....	400,000.00	
Allotments, fixed charges, fees and salary for architects and consulting architect .....	487,904.60	
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	5,790,784.60	\$5,790,784.60
Appropriation .....	5,800,000.00	
	<hr/>	
Balance .....	9,215.40	
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## Second category:

Quartermaster and commissary storehouse .....	\$300,000.00	
Quartermaster stables and wagon shed .....	135,000.00	
Cadet laundry .....	50,000.00	
Two double sets captains' quarters .....	50,000.00	
Three majors' quarters .....	45,000.00	
Completion officers' mess .....	25,000.00	
Enlargement band barracks and remodeling present artillery barracks and post exchange .....	30,000.00	
Post school for children .....	25,000.00	
Public stable .....	10,000.00	
South gate guardhouse .....	20,000.00	
Elevator and gateway .....	100,000.00	
Remodeling officers' quarters Nos. 27 and 29 for one professor .....	10,000.00	
Railroad freight shed, dock, and cableway .....	115,000.00	
Superintendent and staff officers' quarters .....	100,000.00	
Remodeling engineer barracks .....	10,000.00	
Special fittings for new academic building .....	50,000.00	
Furniture for post headquarters .....	10,000.00	
Furniture for cadet headquarters .....	5,000.00	
Roads, retaining walls, water, sewer, and gas .....	50,000.00	
		\$1,140,000.00

## Third category:

Alterations to present academic building .....	30,000.00	
Army service barracks .....	125,000.00	
Memorial bridge .....	50,000.00	
Two cadet battalion headquarters .....	40,000.00	
Twenty sets quarters for enlisted men .....	50,000.00	
Noncommissioned staff officers' quarters .....	20,000.00	
Roads, retaining walls, walks, sewer, water, and gas .....	75,000.00	
		390,000.00

Total .....	7,320,784.60
Contingencies, such as salaries of inspectors of work, administrative or office force, advertising, wiring of retained existing buildings for electric light and fixtures, demolition of old buildings, etc .....	179,215.40
Grand total .....	7,500,000.00

The Secretary of War has approved of the construction as soon as feasible of the buildings and improvements mentioned in the first category, Congress having, by the act approved March 3, 1905, amended the original act as follows:

In carrying out the provisions of the act of June 28, 1902, after general plans have been prepared and approved by the Secretary of War, he may, within the limit of cost fixed, proceed with their execution in such order as the detailed plans may be approved by him, and in such manner, by contract or otherwise, as he may see fit.

With the completion of the buildings and improvements named in the three categories, the Military Academy plant will be in a position to meet all demands which will be put upon it by the natural growth of the academy for fifty years. Although a certain part of the improvements can not be completed within the present appropriation, the additional work can be accomplished as funds are made available for the purpose, and the present construction scheme, indicated in the first category, will put the plant in best possible shape for the amount expended, keeping in view the future growth of the school. In designing the buildings rigid economy has been practiced, while at the same time the object has been to secure buildings which would meet the present and immediate future needs of the academy, so that as far as the work is carried out the result will be permanent and satisfactory. In some cases the original allotment has been necessarily

increased rather than have a building designed which, if constructed, would eventually have to be torn down and another substituted therefor. Furthermore, the original act for the improvement of the academy specifically required complete plans to be prepared covering all necessary buildings and improvements at West Point, and for each and every purpose connected therewith, and it was also specifically provided that after the preparation and approval of the plan the Secretary of War might enter into a contract or contracts for any part or all of the improvements therein authorized, within the limit of the appropriation. The work on the buildings probably can not be completed before 1912, and it is to be hoped that within this period the additional necessary money may be made available for carrying out the entire approved plan.

As to the actual amount of building work under way, reference should be had to the report of the quartermaster and disbursing officer. Maj. John M. Carson, jr., quartermaster, U. S. Army, who fills these offices and has charge of all the construction work, has performed the many exacting and responsible duties required of him in a highly satisfactory manner. It is gratifying to announce that the bids for the erection of the cavalry and artillery barracks and stables and the artillery gun shed were well within the estimates. The contract price for the cadet barracks and for 16 sets of officers' quarters was not far above the estimates. Ground was broken on the site of the central heating and lighting plant on January 20, 1905, which date marks the beginning of the actual work of construction. The preparation of this site is about completed, and contracts have been let for the purchase and installation of the machinery. The plans for the building are also nearly ready for submission to the War Department. The services of Mr. Henry C. Meyer, jr., of New York City, the consulting engineer, have been of the utmost value in prosecuting this part of the work.

The quarrying of stone for the new buildings has been done by the Government, so that the contractors would not have to figure on this uncertain element of the cost of their work. So far the results have been satisfactory and it is believed materially economical. This matter is fully covered in the report of the quartermaster. The material of all of the important buildings is to be of native granite with trimmings of Indiana limestone. Stone-colored brick will be used in places and for some of the less important structures.

Progress has been made in the preparation of the project of landscape treatment under the provisions of the contract with Messrs. Olmsted Bros., of Brookline, Mass. This plan will supplement the general plan, and together with the plan of forest treatment will form a complete plan providing a definite end to which future improvements may be directed. The forestry plan has been approved by the War Department and put into operation, and Prof. Roy L. Marston, of the Yale Forestry School, has been appointed forester of the Military Academy and spends a portion of each year at West Point supervising the work. His report is hereto appended, marked "Appendix K."<sup>a</sup>

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<sup>a</sup> Omitted.

## ESTIMATES.

The estimates for the next fiscal year are forwarded with this report. The necessity for the few new items embodied is fully explained in the remarks. It is hoped that all will meet with approval.

In conclusion, I have the honor to express grateful appreciation of the able support and assistance I have received from the officers on duty at West Point, and of the cordial help which the War Department and the heads of its bureaus having relations with the academy have given in all matters tending to improve the institution.

Very respectfully,

A. L. MILLS,

*Brigadier-General, U. S. Army, Superintendent.*

THE MILITARY SECRETARY,

*War Department, Washington, D. C.*



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**REPORT OF THE INFANTRY AND CAVALRY SCHOOL  
AND STAFF COLLEGE.**

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## REPORT OF INFANTRY AND CAVALRY SCHOOL.

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FORT LEAVENWORTH, KANS., *August 31, 1905.*

SIR: I have the honor to submit the following report on this school for the year commencing September 1, 1904, and ending August 31, 1905.

The following was the personnel of the school at the beginning of the school course (September 15, 1904):

*Commandant.*—Brig. Gen. J. Franklin Bell, U. S. Army.

*Personal staff.*—Capt. Malin Craig, Tenth Cavalry; First Lieut. Daniel Van Voorhis, Third Cavalry.

Because of the provisions of paragraph 41, Army Regulations, 1904, restricting the detail of other than lieutenants of the Army to the position of aid-de-camp on the staff of a brigadier-general, Captain Craig was, on November 5, 1904, relieved from duty as aid-de-camp, per orders 15, Infantry and Cavalry School and Staff College, series 1904, and First Lieut. Clarence O. Sherrill, Corps of Engineers, appointed to the vacant position by same order:

*Assistant commandant.*—Lieut. Col. W. W. Wotherspoon, Fourteenth Infantry.

Lieutenant-Colonel Wotherspoon was relieved from duty at the school September 22, 1904, to enable him to comply with the requirements of paragraph 1, Special Orders 219, War Department, September 17, 1904, he having been detailed to the General Staff.

Maj. Eben Swift, Twelfth Cavalry, instructor, department of military art, was, on October 1, 1904, detailed to perform the duties of assistant commandant.

*Secretary and disbursing officer.*—Capt. Milton F. Davis, First Cavalry.

Captain Davis was transferred to the Tenth Cavalry per paragraph 13, Special Orders 303, War Department, December 27, 1904.

*Department of military art.*—Maj. Eben Swift, Twelfth Cavalry, instructor; Maj. C. H. Barth, Twelfth Infantry, assistant instructor; Maj. L. S. McCormick, Seventh Cavalry, assistant instructor; Capt. M. F. Steele, Sixth Cavalry, assistant instructor; Capt. J. D. L. Hartman, First Cavalry, assistant instructor; Capt. J. P. Ryan, Sixth Cavalry, assistant instructor.

Major McCormick was, at his own request, relieved from duty at the school to enable him to proceed to the Philippine Islands with his regiment, per paragraph 2, Special Orders 290, War Department, December 10, 1904, and left school March 1, 1905.

*Department of engineering.*—Maj. T. H. Rees, Corps of Engineers, instructor; Capt. E. T. Cole, Sixth Infantry, assistant instructor;



First Lieut. Wildurr Willing, Corps of Engineers, assistant instructor.

Lieutenant Willing was, on July 1, 1905, relieved from duty at the school to enable him to comply with the requirements of paragraph 7, Special Orders 69, War Department, March 25, 1905.

*Department of law.*—Maj. D. H. Boughton, Eleventh Cavalry, instructor; Capt. Charles Crawford, Twentieth Infantry, assistant instructor; Capt. H. O. Williams, Fifth Infantry, assistant instructor; Capt. H. A. White, Eleventh Cavalry, assistant instructor.

Captain Crawford was transferred to the department of military art May 1, 1905, per orders 38, Infantry and Cavalry School and Staff College, May 1, 1905.

*Department of military sanitation and hygiene.*—Lieut. Col. John Van R. Hoff, Medical Department, instructor; Capt. P. F. Straub, Medical Department, assistant instructor; Capt. J. H. Stone, Medical Department, assistant instructor; Capt. David Baker, Medical Department, assistant instructor; First Lieut. J. F. Edwards, Medical Department, assistant instructor.

Captain Baker and Lieutenant Edwards were relieved from duty at the school December 31, 1904, per orders 19, Infantry and Cavalry School and Staff College, December 31, 1904, their services being no longer required.

Lieutenant-Colonel Hoff was promoted colonel, Medical Department, to date January 19, 1904. The order announcing his promotion was not received. Colonel Hoff left the school May 18, 1905, under instructions from the War Department. No order or copy of instructions was received.

Captain Straub was relieved from duty at the school per orders 35, Infantry and Cavalry School and Staff College, April 14, 1905, to enable him to comply with the requirements of paragraph 7, Special Orders 83, War Department, April 11, 1905.

Captain Stone was relieved from duty at the school June 1, 1905, per orders 43, Infantry and Cavalry School and Staff College, June 1, 1905, to enable him to comply with the requirements of paragraph 1, Special Orders 123, War Department, May 27, 1905.

*Department of Spanish.*—The department of Spanish was not organized until December 28, 1904, when the following-named officers, who had reported pursuant to War Department orders, were assigned to it per orders 18, Infantry and Cavalry School and Staff College, series of 1904, viz: Capt. P. E. Traub, Thirteenth Cavalry, instructor; Capt. Le J. Parker, Twelfth Cavalry, assistant instructor; Capt. C. F. Bates, Twenty-fifth Infantry, assistant instructor.

Captain Bates was, on May 1, 1905, after completion of the instruction and examinations in that department, transferred to the department of law, per paragraph 2, orders 38, Infantry and Cavalry School and Staff College, May 1, 1905.

*Student officers.*—First Cavalry, First Lieut. James D. Tilford, First Lieut. Roger S. Fitch; Third Cavalry, First Lieut. Daniel Van Voorhis, First Lieut. Brice P. Disque; Fourth Cavalry, First Lieut. Samuel A. Purviance; Fifth Cavalry, Capt. Lucius R. Holbrook; Sixth Cavalry, First Lieut. Stuart Heintzelman, Second Lieut. Kenyon A. Joyce; Seventh Cavalry, Capt. William H. Paine; Eighth

Cavalry, Capt. Farrand Sayre; Ninth Cavalry, First Lieut. John S. Fair; Tenth Cavalry, First Lieut. Charles C. Farmer, jr.; Eleventh Cavalry, First Lieut. Thomas F. Ryan, First Lieut. Eben Swift, jr.; Fifteenth Cavalry, First Lieut. William D. Forsyth, First Lieut. Charles E. McCullough; First Infantry, Capt. Campbell King, First Lieut. George C. Lewis; Second Infantry, First Lieut. Archie J. Harris, First Lieut. Paul H. McCook; Fifth Infantry, First Lieut. Clement A. Trott, First Lieut. Paul W. Beck; Sixth Infantry, First Lieut. Harry F. Dalton; Eighth Infantry, First Lieut. Edwin J. Bracken; Ninth Infantry, Second Lieut. Willis E. Mills; Tenth Infantry, Capt. James V. Heidt, First Lieut. Joel R. Lee; Eleventh Infantry, First Lieut. James W. Furlow, First Lieut. Charles H. Errington; Thirteenth Infantry, First Lieut. William T. Patten; Fifteenth Infantry, First Lieut. Benjamin H. Watkins; Sixteenth Infantry, First Lieut. Charles E. Morton; Nineteenth Infantry, First Lieut. Martin L. Crimmins; Twenty-first Infantry, First Lieut. James M. Love, jr.; Twenty-fourth Infantry, First Lieut. John B. Sanford; Twenty-fifth Infantry, First Lieut. John N. Straat; Twenty-sixth Infantry, Capt. Hanson E. Ely, Capt. Murray Baldwin; Twenty-seventh Infantry, First Lieut. Ralph McCoy, Second Lieut. John J. Fulmer; Twenty-eighth Infantry, First Lieut. Andrew J. Dougherty, First Lieut. Edward A. Kreger; Twenty-ninth Infantry, First Lieut. William H. Waldron, First Lieut. Charles L. Willard; Thirtieth Infantry, Capt. Harry H. Tebbetts, First Lieut. Eldred D. Warfield.

The following officers of the foregoing list graduated as honor graduates: First Lieut. Roger S. Fitch, First Cavalry; First Lieut. Edward A. Kreger, Twenty-eighth Infantry; Capt. Farrand Sayre, Eighth Cavalry; First Lieut. Stuart Heintzelman, Sixth Cavalry; First Lieut. Clement A. Trott, Fifth Infantry.

The following made the necessary grade to qualify as distinguished graduates: Brice P. Disque, first lieutenant, Third Cavalry; Andrew J. Dougherty, first lieutenant, Twenty-eighth Infantry; Hanson E. Ely, captain, Twenty-sixth Infantry; Kenyon A. Joyce, second lieutenant, Sixth Cavalry; Campbell King, captain, First Infantry; Ralph McCoy, first lieutenant, Twenty-seventh Infantry; Charles E. McCullough, first lieutenant, Fifteenth Cavalry; William H. Paine, captain, Seventh Cavalry; Harry H. Tebbetts, captain, Thirtieth Infantry; William H. Waldron, first lieutenant, Twenty-ninth Infantry.

The foregoing 15 officers were originally designated by telegram from the War Department for the Staff College, but new regulations were subsequently adopted pursuant to which the retention of the seventeen highest grades for the staff class of the following school year was authorized.

Captain Holbrook and Lieutenant Fair, who graduated 16 and 17, respectively, had already been relieved by order 49, Infantry and Cavalry School and Staff College, July 1, 1905, prior to the adoption of this regulation. By direction of the Secretary of War so much of that order as relieved Captain Holbrook and Lieutenant Fair from duty at the school was revoked by order 53, Infantry and Cavalry School and Staff College, July 25, 1905, they having also been designated to take the course in the Staff College during the coming school year.

All the rest of the members of the class, having made proficient grades, were graduated, excepting the following three, who failed as indicated: Second Lieut. Willis E. Mills, Ninth Infantry, failed in law of evidence, military history, and map problems in applied tactics; Capt. John N. Straat, Twenty-ninth Infantry, failed in practical topographic sketching; Capt. Benjamin H. Watkins, Thirteenth Infantry, failed in military history and Spanish.

The following officers were, by authority of the War Department, retained on duty at the post to enter the Signal School the following school year: First Lieut. Paul W. Beck, Fifth Infantry; First Lieut. George C. Lewis, First Infantry; First Lieut. Eldred D. Warfield, Thirtieth Infantry; First Lieut. Charles L. Willard, Twenty-ninth Infantry.

All the rest of the officers were relieved from duty at the school on July 1, excepting First Lieuts. Martin L. Crimmins, Nineteenth Infantry; James M. Love, jr., Twenty-first Infantry, and Paul H. McCook, Second Infantry, who were relieved to take effect upon the completion of their examinations for promotion.

Discipline during the year has been excellent.

#### PROGRESS.

Considering the fact that the staff of the school was called upon to plan, organize, systematize, and conduct new courses of instruction in both schools (Infantry and Cavalry School and Staff College) at the same time, the progress made has been very gratifying. Though one of the courses of instruction in both schools is yet far from perfect in system, gratifying progress has been made in this regard also, and within a year or two there is every reason to hope that thorough system will have been established.

The making of an accurate, progressive topographical map of the reservation has been adopted as a part of the instruction of the staff class, and satisfactory progress was made in this work during the year.

#### RECOMMENDATIONS.

I have no recommendations to make. Among those made by the staff of this college which resulted in the adoption of the course outlined in General Orders, No. 115, War Department, series of 1904, will be found certain recommendations that a small amount of elementary instruction be dropped from the course here as soon as this particular part of the course has been reached by the annual curriculum of garrison schools. These recommendations related to instruction in hygiene, in security and information, and in several minor subjects. It is intended to eliminate these subjects from the course as soon as the progress of instruction in garrison schools shall justify such action.

It will probably always be necessary to retain in the course of instruction in the Infantry and Cavalry School a certain amount of practical instruction in security and information, inasmuch as successful practical instruction in tactics largely depends upon a clear and accurate comprehension of the elementary principles embodied in security and information. It will hardly ever be safe to presuppose

the possession of this information in adequate form on the part of every officer who enters the Infantry and Cavalry School. And before giving such practical instruction it will probably always be necessary to have a hasty review of security and information, followed by an examination, to test the knowledge of student officers therein.

With the exceptions noted above, all instruction in security and information will be dropped out of next year's course.

In the individual reports<sup>a</sup> of the heads of departments, hereto appended, will be found detailed information concerning the course of instruction in their departments and methods of conducting the same.

Very respectfully,

J. F. BELL,  
*Brigadier-General, U. S. Army,*  
*Commandant.*

The CHIEF OF STAFF, U. S. ARMY,  
*Washington, D. C.*

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<sup>a</sup> Omitted.

## REPORT OF STAFF COLLEGE.

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FORT LEAVENWORTH, KANS.,  
August 31, 1905.

SIR: I have the honor to submit the following report on this college for the year commencing September 1, 1904, and ending August 31, 1905:

The Staff College was established pursuant to paragraph 2, General Orders, No. 115, War Department, June 27, 1904. Its personnel at the beginning of the college year (September 1, 1904) was as follows:

*Commandant.*—Brig. Gen. J. Franklin Bell, U. S. Army.

*Personal staff.*—Capt. Malin Craig, Tenth Cavalry; First Lieut. Daniel Van Voorhis, Third Cavalry.

Because of the provisions of paragraph 41, Army Regulations, 1904, restricting the detail of other than lieutenants of the Army to the position of aids-de-camp on the staff of brigadier-generals, Captain Craig was, on November 5, 1904, relieved from duty as aid-de-camp, per orders 15, Staff College, series 1904, and First Lieut. Clarence O. Sherrill, Corps of Engineers, appointed to the vacant position by same order.

*Assistant commandant.*—Lieut. Col. W. W. Wotherspoon, Fourteenth Infantry.

Lieutenant-Colonel Wotherspoon was relieved from duty at the college September 22, 1904, to comply with the requirements of paragraph 1, Special Orders 219, War Department, September 17, 1904, he having been detailed to the General Staff.

Maj. Eben Swift, Twelfth Cavalry, instructor, department of military art, was, on October 1, 1904, detailed to perform the duties of assistant commandant.

*Secretary and disbursing officer.*—Capt. Milton F. Davis, First Cavalry.

Captain Davis was transferred to the Tenth Cavalry per paragraph 13, Special Orders 303, War Department, December 27, 1904.

*Department of military art.*—Maj. Eben Swift, Twelfth Cavalry, instructor; Maj. C. H. Barth, Twelfth Infantry, assistant instructor; Capt. M. F. Steele, Sixth Cavalry, assistant instructor; Capt. J. D. L. Hartman, First Cavalry, assistant instructor; Capt. J. P. Ryan, Sixth Cavalry, assistant instructor.

*Department of engineering.*—Maj. T. H. Rees, Corps of Engineers, instructor; Capt. E. R. Stuart, Corps of Engineers, assistant instructor.

*Department of law.*—Maj. D. H. Boughton, Eleventh Cavalry, instructor; Capt. H. O. Williams, Fifth Infantry, assistant instructor.

*Student officers.*—Of the 23 officers constituting the staff class, the following named were members of the infantry and cavalry class of

1903-4, which was graduated June 27, 1904, viz: Capt. R. F. Walton, Sixth Infantry; Capt. W. K. Naylor, Ninth Infantry; Capt. Tenney Ross, Seventh Infantry; Capt. Malin Craig, Tenth Cavalry; First Lieut. Raymond Sheldon, Eighteenth Infantry; First Lieut. G. E. Thorne, Twelfth Infantry; First Lieut. R. H. Peck, Twenty-fourth Infantry; First Lieut. J. F. James, Eighth Infantry; First Lieut. F. E. Buchan, Third Cavalry; First Lieut. L. A. I. Chapman, First Cavalry; First Lieut. W. A. Castle, Sixteenth Infantry; First Lieut. Gad Morgan, Seventh Infantry; Second Lieut. W. N. Haskell, Ninth Cavalry; Second Lieut. Frederick Mears, Fifth Cavalry; Second Lieut. E. K. Massee, Seventh Infantry.

These officers were, by paragraph 9, Special Orders 169, War Department, July 20, 1904, detailed to enter the class at the Staff College on September 1, 1904, together with the following, viz: Capt. R. H. C. Kelton, Artillery Corps; Capt. O. L. Spaulding, jr., Artillery Corps; Capt. W. D. Connor, Corps of Engineers; Capt. W. B. Ferguson, Corps of Engineers; First Lieut. H. B. Clark, Artillery Corps. All reported on the date specified.

Capt. E. E. Booth, Tenth Cavalry, was detailed to enter the class at the Staff College by paragraph 13, Special Orders 207, War Department, September 2, 1904, and reported for duty at the college September 15, 1904.

First Lieut. C. S. Haight, Fourth Cavalry, was detailed to enter the class at the Staff College by paragraph 18, Special Orders 204, War Department, August 30, 1904, and reported for duty at the college September 13, 1904.

First Lieut. H. J. Brees, Signal Corps, was detailed to enter the class at Staff College by paragraph 11, Special Orders 213, War Department, September 10, 1904, and reported for duty at the college September 30, 1904.

During the college year the following changes occurred in student personnel, viz:

Capt. Malin Craig, Tenth Cavalry, was transferred to the First Cavalry by paragraph 13, Special Orders 303, War Department, December 27, 1904.

Capt. E. E. Booth, Tenth Cavalry, was transferred to the Seventh Cavalry per paragraph 3, Special Orders 109, War Department, May 11, 1905.

First Lieut. H. J. Brees, Signal Corps, was promoted captain, First Cavalry, per paragraph 9, Special Orders 283, War Department, December 2, 1904.

First Lieut. Raymond Sheldon, Eighteenth Infantry, was promoted captain, Eighteenth Infantry, per paragraph 6, Special Orders 250, War Department, October 24, 1904.

First Lieut. C. S. Haight, Fourth Cavalry, was promoted captain, Fifth Cavalry, per paragraph 5, Special Orders 120, War Department, May 24, 1905.

First Lieut. H. B. Clark, Artillery Corps, was promoted captain, per paragraph 3, Special Orders 286, War Department, December 6, 1904.

Second Lieut. E. K. Massee, Seventh Infantry, was promoted first lieutenant, Twenty-second Infantry, per paragraph 3, Special Orders 118, War Department, May 16, 1905.

## COURSE OF INSTRUCTION.

The course of instruction was as successful and satisfactory as could reasonably be expected during the first year of the college's existence.

A rather difficult problem was imposed upon the staff of the college and Infantry and Cavalry School, namely, to plan and conduct at the same time new courses of instruction in both schools. The staff worked faithfully, and is entitled to much credit for the successes achieved.

It has been found rather difficult to coordinate the work of the two schools to the best advantage thus far, and it is feared that the inauguration of the Signal School (which must be coordinated also) may still further complicate matters, but the proposition is not unsolvable, and there is no doubt that in due time it will be solved satisfactorily.

Discipline has been excellent throughout the year.

The Staff College is yet so young I have had insufficient experience to make any recommendations for changes in the course. To best promote the progress and improvement of the college, such changes should be made only as a result of mature experience.

Detailed reports concerning the courses of instruction in the different departments, and methods of conducting the same, will be found in the reports of heads of departments attached hereto as appendixes.<sup>a</sup>

Very respectfully,

J. F. BELL,

*Brigadier-General, U. S. Army, Commandant.*

The CHIEF OF STAFF, U. S. ARMY,  
*Washington, D. C.*

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<sup>a</sup> Omitted.

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**REPORT OF THE SCHOOL OF APPLICATION FOR  
CAVALRY AND FIELD ARTILLERY.**

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## REPORT OF SCHOOL OF APPLICATION FOR CAVALRY AND FIELD ARTILLERY.

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FORT RILEY, KANS., *August 31, 1905.*

SIR: In accordance with the requirements of paragraph 11, General Orders, No. 138, War Department, current series, I have the honor to report the progress and needs of the School of Application for Cavalry and Field Artillery for the year ended this date.

Brig. Gen. Francis Moore, U. S. Army, relinquished the duties of commandant on September 30, 1904, to assume command of the Department of California, as directed in Special Orders, No. 217, War Department, series of 1904. Col. E. Z. Steever, Fourth Cavalry, was in command from that date until his departure, on October 15, with the headquarters, band, and first squadron of his regiment, for Fort Walla Walla, Wash. Pending the completion of the transfer of the troops, directed in General Orders, Nos. 98 and 134, War Department, series of 1904, Lieut. Col. William Stanton, Eleventh Cavalry, was acting commandant. I arrived at Fort Riley, with headquarters and band, Ninth Cavalry, on October 23, and assumed command the following day.

Excepting short leaves of absence, November 4 to 19, 1904, and January 27 to February 5, 1905, detached service on horse board, December 12 to 14, 1904, and detached service in command of the Department of the Missouri, April 17 to 22, 1905, I have been continuously in command of the school and post to the date of this report.

As explained at length in the report of my predecessor, the one-year course, in operation during the spring of 1904, was congested and unsatisfactory. It also necessitated either yearly repetition or two years of stagnation. A recommendation to expand this one-year course into a progressive one covering three years of duty at the school having been approved by the Chief of Staff, the general scheme was published in General Orders, No. 115, War Department, series of 1904, and my report will, therefore, set forth in detail the results attained during the first year of the enforcement of the new schedule.

The detailed programme of instruction required by paragraph 141 of General Orders, No. 115, was prepared and submitted before my arrival. It was approved by the Chief of Staff, practically as submitted, and was published in General Orders, No. 8, School of Application, series of 1904 (Appendix 1).<sup>a</sup>

According to the custom of previous years, problems of the com-

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<sup>a</sup> Omitted.

bined arms should have been in progress at the time of my arrival. Upon inquiry I ascertained that the work was impracticable for the following reasons:

The squadron of the Eighth Cavalry had large details guarding the property and caring for the horses left by the squadron of the Fourth Cavalry. The squadron of the Ninth Cavalry had not arrived (the troops of this squadron were on duty in the national parks and their relief was consequently delayed). The Seventh Battery, Field Artillery, was on special duty under the Field Artillery Board; the Twentieth Battery, Field Artillery (now a horse battery), was in a state of transition; and the other three batteries were busily engaged in drilling large squads of recruits. An idea of the extent to which these batteries are crippled by the practically simultaneous discharge of a large number of enlisted men can be formed from the statement that the record of pistol practice in one of the batteries for 1904 contains the names of 77 men who were not present in 1903.

The records of the school show that this important final review of the season's work has not been successfully carried out since the reestablishment of the school in 1901. Department and division maneuvers, however, were held at Fort Riley in 1902 and 1903, and the command undoubtedly profited more by problems of the three arms than they would have done from the school programme. Firmly convinced of the necessity of combined work, and fully determined to enforce the schedule, I regret to state that the entire artillery command has been organized into a provisional regiment which will remain in separate existence until November 1 next.

The opening of the school term, November 20, 1904, was covered by General Orders, No. 9, School of Application (Appendix 2).<sup>a</sup>

It will be observed that both in hygiene and horseshoeing the student officers of cavalry and Field Artillery formed a combined class. The reason for this step in the first case is obvious—to avoid the necessity of doubling the work of the post surgeons, the only instructor available. In the second case the plan appeared to me advisable, because while during the preceding term cavalry subalterns had worked under an instructor in the shop of the training school for farriers and horseshoers the Field Artillery subalterns had attended a course of lectures and had performed, without competent supervision, voluntary practical work in the different battery shops. The director of the School of Field Artillery cordially acquiesced in the proposed plan.

Ten recitations in Woodhull's Military Hygiene constituted the course in that subject. When the time for examination approached attention was called to the fact that the detailed programme made no provision therefor. The former school board had, moreover, added this subject to those specified in General Orders, No. 115. Consequently the Chief of Staff, when appealed to, decided adversely on the question of the propriety of the instruction, but stated that the subject could be added to the curriculum for the following year. Accordingly those student officers who were about to graduate were not examined.

Details of the instruction in horseshoeing appear in the report of Capt. W. C. Short, Thirteenth Cavalry, the officer in charge (Ap-

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<sup>a</sup> Omitted.

pendix C).<sup>a</sup> During my visits to the shop I was impressed with the application and zeal of the student officers and much pleased with the results of their manual labor. Very naturally some of them showed little dexterity in handling tools and iron, but they were all held up to a rigid standard of work and all qualified at examination. This manual instruction, which gives thorough comprehension of methods and requirements, is just as essential to mounted subalterns as is the machine-shop work to the naval cadets at Annapolis. While, however, all naval officers have had shop experience, only a very few subalterns of the mounted service have derived the benefits of this school. Captain Short's recommendation that recitations take the place of lectures and that a written examination be held is approved and will be provided for in the new detailed programme.

Instructions in training and detraining quartermaster harness and transportation was not as thorough nor as elementary as it should have been. As an object lesson, the wagons and harness shown were in excellent condition, but hereafter student officers will be required to take apart and assemble all material commonly used in the field. It is hoped that the railroad authorities will allow the use of a platform car and a stock car, when training and detraining will be taught, using platform, portable ramp, railroad ties, and various expedients.

Before taking up the course in equitation and horse training I was again surprised to learn that the subalterns of field artillery had never received instruction in these essential branches.

Even if the suggested separation of the Field Artillery from the Coast Artillery never takes place some of these subalterns will eventually command field batteries. With the hearty assent of the director of the School of Field Artillery I obtained authority from the War Department and organized combined classes in hippology and in equitation and horse training (Appendix 3).<sup>a</sup> The objects of this policy may be cited as (1) reduced number of instructors; (2) increased number of student officers in each class, with consequent increase of interest and competition; (3) concentration of material and facilities for instruction; (4) affiliation of the two branches of the service in order to promote the primary object of the school, "the combined operations of the two arms," and in order to discourage any tendency to clannishness.

A series of recitations on the theory of bits and biting, seats and saddles, etc., had in previous years formed a part of the course in hippology. At a meeting of the school board it was decided to transfer these recitations to the course in equitation, in order that theory and practice should be under one instructor.

At the same meeting, it was decided that the second part of paragraph 147, General Orders, No. 115, War Department, series of 1904, should be interpreted as requiring the attendance of student officers in their first year at the course in equitation. Their own instruction will naturally make them better instructors in their organizations. All officers of the squadron of the Ninth Cavalry with less than ten years' service were accordingly entered. The class was larger than is advisable with but one instructor, but it will not be necessary for this combination to occur again.

I refer to the report of the instructor, Capt. W. C. Short, Thir-

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<sup>a</sup> Omitted.

teenth Cavalry, for the details of the work in equitation and horse training (Appendix D).<sup>a</sup>

The average work in the course in hippology of the second-year class was not up to the usual standard. With some few exceptions, the subalterns of the Eleventh Cavalry did not seem to realize the necessity of hard study from the outset. In consequence, four of their number failed to qualify at examination. One subaltern of Field Artillery also failed in the practical work. The names of the deficient members of the class were published in orders with a most wholesome effect. Their subsequent work left nothing to be desired, and the school board, satisfied that they appreciated their error, recommended that they be conditioned and reexamined.

The progress of the third-year class was excellent, and I took occasion to congratulate the regimental commander of the Eighth Cavalry on the proficiency of the officers of his third squadron.

After the completion of the course in hippology, the student officers took up the work of their separate schools, reported upon by the directors, Col. Sydney W. Taylor, Artillery Corps (Appendix A),<sup>a</sup> and Lieut. Col. James Parker, Thirteenth Cavalry (Appendix B).<sup>a</sup>

In compliance with letter of instructions from the War Department, the school board submitted, on April 5, 1905, suggestions for the amendment of the provisions of General Orders, No. 115, War Department, series of 1904, pertaining to this school, and it is a source of great satisfaction to find that the recommendations of the board have been adopted in General Orders, No. 138, War Department, series 1905.

The suggested changes were based on the experience of the winter season, and most of them have been already mentioned in my report. Recitations in "Security and information" and "Organization and tactics" have been eliminated. Nearly all subalterns who now enter the school have recited from these text-books in garrison school or at the Military Academy, and a repetition is naturally irksome. In the case of an officer who has not studied these important subjects advantage can be taken of the course of certified reading which has been added to the work of the first year. This reading, in the ordinary case, will be directed to more advanced professional subjects. An advanced course of lectures in hygiene will be followed by practical work in sanitary inspections, requiring written reports. Lecture notes will be examined and criticised, with a view to impressing the habit of recording salient points, and preparation for examination will be restricted to the student's own notes.

A new detailed programme, embodying the changes mentioned, is in course of preparation.

Gratifying evidence of the just estimate that rare professional opportunities are to be had at the School of Application comes in the form of frequent requests from cavalry subalterns for information as to their chances of a tour of duty here. These repeated applications have led to a consideration of means to accommodate this desire throughout the mounted service for increased knowledge of the horse and his management. Up to the present time the student officers have been the subalterns of the three cavalry squadrons and the five field artillery batteries stationed at this post. As but one squadron of

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<sup>a</sup> Omitted.

cavalry arrives each year, it is not very satisfactory to an ambitious cavalry subaltern to figure out that his tour of duty may come some time in the next forty-five years. At present the material worked upon by the instructors is not all equally good. In every squadron there are young officers who are not enthusiastic horsemen, and it seems a pity that these subalterns should plod through the course while more suitable material is denied the privilege of admission. It is not to be concluded that I consider transfers feasible; but I am convinced that a detail of one officer from each regiment of cavalry in the United States could be made annually with great benefit to the cavalry arm. Under a recent decision of the Chief of Staff the eight senior graduates of the Military Academy assigned to the cavalry arm each year will hereafter report at this school in the fall for a seven months' tour of instruction in hippology, horseshoeing, equitation, and horse training. This special abridged course will contain the most essential features of the school training, and is exactly what I would recommend for the officers detailed from regiments. Such details should be made with the utmost care. The officer selected should have expressed a desire to enter the school, should have the proper physique for a rider and a patient disposition for horse training, and, above all, should be imbued with the idea that only a hard worker will succeed.

To make this plan feasible, a dormitory for 24 officers should be erected; but, inasmuch as their tour of duty would be short, it is not considered that sets of commodious suites of rooms, like those in Carr Hall, would be necessary.

The only change contemplated in the instruction of noncommissioned officers of cavalry is to adopt a progressive course of two years' duration. It has been found impracticable to teach thoroughly in one year the different subjects specified in the detailed programme, and as all of these subjects are essential they will be distributed through two school sessions. This plan is now in successful operation in the School of Field Artillery. A few changes in the subjects taught in this latter school are the result of experience as reported by the director.

Details of the instruction of the separate commands will be found fully set forth in the director's reports. Progress has been uniformly good.

Instruction of enlisted men in gymnastics is covered by General Orders, No. 2, School of Application, current series (Appendix 4).<sup>a</sup> It was contemplated to put the artillery command through this highly beneficial course, but the director was opposed to the plan on account of the great distance to the gymnasium from the artillery barracks and the danger of exposing heated men during the inclement winter season. Accordingly the enlisted men of the field batteries were drilled in calisthenics, daily, under their own officers. Remarks on the work of the cavalry command in the gymnasium are continued in the report of the director of the School of Cavalry.

Careful attention is invited to the schedule of hours for the use of the riding hall, published in General Orders, No. 10, School of Application, series of 1904 (Appendix 5).<sup>a</sup> Provision is here made for the

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<sup>a</sup> Omitted.

attendance of 12 troops of cavalry, 5 batteries of field artillery, and 2 officers' classes. It became necessary, later, to modify the schedule, to permit the drilling of squads of recruits. It will be seen that the time assigned to an organization averages forty-five minutes, which is far from sufficient, and that, in order to obtain even this much, 2 squadrons of cavalry and 1 battalion of field artillery are allowed the use of the hall only one week in three. During the other two weeks these organizations must resort to horse exercise, which is not only unsatisfactory in this climate but results in a complete setback in their riding-hall training and instruction. Of the needs of this school, none requires attention so urgently as this lack of facilities for winter work with horses. The field artillery command, with its 700 horses, should have a separate riding hall, erected on ground close to the battery stables. This hall, in my opinion, should be equal in size to the one we now have (300 by 100 feet), in order to permit, when desired, elementary instruction in driving. A smaller hall (150 by 50 feet), for the use of officers' classes and of squads of cavalry recruits, should be erected on ground close to the plant of the training school for farriers and horseshoers, which is controlled by the instructor in equitation. The necessity for more riding halls has been pointed out by my predecessors, without result, and it would seem that the matter failed to receive the consideration it deserves. I hope that the situation has been shown clearly in this report. It seems to me just as impossible to obtain results and as irrational to expect them, under the conditions I have described, as it would be if a factory were run with two-hour shifts and some of the shifts came on once a month.

#### TRAINING SCHOOL FOR FARRIERS AND HORSESHOERS.

Here the situation is different. This school, started in 1903 with an old condemned shed for a shop, an abandoned stable for a hospital and class rooms, and with the students attached to the various organizations of the post, now has an adequate and up-to-date plant that can not be equaled in this country—a credit to the Army. The great success of the school must be credited to the unremitting push and energy of the officer in charge, Capt. Walter C. Short, Thirteenth Cavalry, who has persevered under most discouraging conditions; but the unrivaled facilities now possessed are the result of an appreciation by higher authorities of the needs of his training school. In urging more riding halls I am endeavoring to obtain just such appreciation of the needs of the School of Application, which has 1,700 men and an equal number of horses.

I thoroughly concur in the remarks of the officer in charge in his report (Appendix E)\* on the advisability of changing the method of detailing enlisted men to attend the training school. I have carefully studied the number of graduates in the troops of my own regiment, and am satisfied that the present roster in the War Department produces hit-or-miss results. By calling for reports from organization commanders, the urgent needs of the mounted service can be supplied, and the hard work of the instructors will not be thrown away. Experience shows that in many troops some old soldier is carried as a farrier, probably for personal reasons, while carefully instructed

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\* Omitted.

graduates of this school, upon their return to these same troops, are detailed on kitchen police. In my regiment I am requiring troop commanders to send to the school any man, not a graduate, who is carried as farrier, and consider that the plan could be adopted to advantage in all cavalry regiments.

#### TRAINING SCHOOL FOR BAKERS AND COOKS.

The full and comprehensive report of the officer in charge of the training school for bakers and cooks, Capt. M. S. Murray, commissary, U. S. Army (Appendix F),<sup>a</sup> explains in detail the opening of the two branches of his training school and the present satisfactory stage of progress. It fails to show, however, the difficulties encountered by Captain Murray in the establishment of the cooking school.

Failing an adequate plant, practical instruction could be given only in organization kitchens where students were attached. It is hardly necessary to call attention to the fact that this was treading on delicate ground, but Captain Murray met the situation with his accustomed energy and with such admirable tact that at a recent meeting of troop commanders every kitchen in the cavalry subpost was voluntarily turned over to the administration and supervision of the instructors of the training school.

The experiment is being closely watched, but I have no misgivings. It is doubtful if there is in the Army to-day another officer with the same thorough knowledge of the details of the practical work of bakers and cooks, and the Subsistence Department is to be congratulated on having one of its members so competent to report results from the viewpoint of the organization commander in garrison or field.

The detachment of bakers is now in camp, and it will be a difficult matter to house the men during the winter. The cooks, at this advanced stage of the course, are attached to organizations, but in the beginning they should be kept together for collected instruction. Looking ahead, also, to probable increase in the number of men under instruction, I recommend that a barracks be constructed for this training school. A double cavalry barracks was erected for the training school for farriers and horseshoers, and answers the purpose admirably. Evidently the purpose was to have the building available for use of troops if at any time the school was discontinued. As the bakery is situated in closer proximity to the artillery subpost, a barracks for the bakers and cooks' detachment should, in my opinion, be similar to those recently built for single batteries of field artillery. The kitchen should be provided with four army ranges.

I desire to emphasize Captain Murray's recommendation that reen-listed men instead of recruits be detailed for instruction. The recruit graduate makes a poor impression. However thorough his schooling, a post commander hesitates to place a mere stripling in charge of a post bakery. Reports from the Philippines are almost always the same. When graduated farriers and horseshoers (all graduates sent to the Philippines are recruits) report to their organization commanders, they show the need of elementary military instruction, and are, therefore, put through their recruit drill. This procedure appar-

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<sup>a</sup> Omitted.

ently strikes them as left-handed, and they become dissatisfied or even worthless soldiers.

Unless the service at large fully appreciates this state of affairs, the school very naturally loses in certain quarters the reputation to which it is justly entitled. Obviously, also, much of the hard work of the instructors is now sacrificed. In the interest of economy men should be furnished who will remain in the service. For the general good of the service such material should be furnished that the finished article, with the school brand, can be accepted without question.

#### FINANCES.

From the report of the secretary and disbursing officer (Appendix G)<sup>a</sup> it will be seen that the expenses of the training schools have consumed nearly half of the allotment of funds for the School of Application. For the last three years the allotments have been \$2,868.54, \$2,500, and \$2,500. Meanwhile, the training schools have been established and their expenses have grown rapidly. The work demanded from the school printing establishment is constantly increasing and its running expenses have grown. A further necessity for increased funds developed recently, when the Chief of Ordnance, acting upon a requisition for spare parts to repair the school riding equipment, stated that school funds should be used for the purchase thereof. This view had not been anticipated, and provision will hereafter be made in estimates according to the policy adopted. It seems clear that growing necessities should receive increased allotment.

#### THE CAVALRY BOARD.

The work of the cavalry board has been handicapped by the absence of field officers and numerous changes in the personnel. It is suggested that the instructor in equitation should be designated as a member of the board. Two captains of cavalry are members by seniority, and at only one meeting has Captain Short had sufficient rank to sit on the board. The position of instructor in equitation will always be filled by a riding expert, whose opinion is especially valuable, and, moreover, this officer has exceptional facilities for testing the various kinds of experimental material on which the board is required to report.

The needs of the school may be briefly summarized: Two new riding halls, one new single barracks, one new dormitory for subalterns, increased allotment of funds.

My recommendations are: That one officer from each cavalry regiment in the United States be detailed annually for a seven-months tour of instruction at this school; that for the next detail of enlisted men to the training school for farriers and horseshoers organization commanders be called upon to report the number of graduates present and the actual needs of the organization; that whenever possible reenlisted men be sent to the training schools instead of recruits; that a bridge across the Kansas River be constructed to replace the one carried away in the flood of 1903.

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<sup>a</sup> Omitted.



In conclusion, I wish to record my appreciation of the painstaking, conscientious work of all officers in charge of instruction and of the present excellent professional spirit of student officers.

I wish particularly to testify to the all-round ability and special talents of Capt. George H. Cameron, Fourth Cavalry, the secretary of the school. His general knowledge of the needs of the service, his ready comprehension of suggestions, and his zealous cooperation have been of the greatest assistance in forwarding the progressive work of the school.

The almost invariable acceptance by the War Department of past recommendations of the school board has been a source of gratification. There has resulted the feeling of responsibility which, in my opinion, promotes constant endeavor.

ED. S. GODFREY,

*Colonel Ninth Cavalry, Commandant.*

THE MILITARY SECRETARY,

*War Department, Washington, D. C.*



## REPORT OF THE ARTILLERY SCHOOL.

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FORT MONROE, VA., *September 30, 1905.*

SIR: I have the honor to submit the following report on the Artillery School for the year which ended August 31, 1905:

The command of the school devolved upon the undersigned throughout the year.

The following changes in the personnel of the school have been made since last annual report:

*Relieved.*—Maj. Frank S. Harlow, Artillery Corps, from duty as instructor, department of ballistics and seacoast engineering, September 7, 1904; Capt. Henry C. Davis, Artillery Corps, from duty as instructor, department of electricity, November 29, 1904.

*Assigned.*—Capt. Isaac N. Lewis, Artillery Corps, as assistant instructor, department of electricity, August 26, 1904; Capt. Alston Hamilton, Artillery Corps, as assistant instructor, department of ballistics and seacoast engineering, August 26, 1904; Second Lieut. James Totten, Artillery Corps, as assistant instructor, department of artillery, September 12, 1904; Capt. Frank E. Harris, Artillery Corps, as instructor, department of ballistics and seacoast engineering, September 7, 1904; Capt. Isaac N. Lewis, Artillery Corps, as instructor, department of electricity, November 29, 1904.

The work of the school during the year has been conducted in accordance with the orders, regulations, and special instructions governing it, and the progress made has been very satisfactory, the student officers generally evincing proper interest in the instruction given. As a class, it can be stated that they were studious, attentive to duty, and displayed a marked determination to avail themselves to the fullest extent of the opportunities afforded them.

In this connection the instructor, department of electricity, reports:

With few exceptions the students have shown a most commendable degree of zeal and industry in their school work during the year, and the accomplished results have been all that can be reasonably expected under present limits of time allotted and number instructed.

The instructor, department of artillery, reports:

The character of the school work of the class of 1905 has been made plain in previous reports; advantage is taken of this final report to invite attention to the military spirit of the great majority of the class; to their appreciation of their duties as officers and to their devotion to these duties.

The instructors and assistant instructors have been zealous and efficient in the performance of their duties; their work has been entirely satisfactory. Free use is made herein of the reports submitted by them to the commandant of the school. During the period covered by this report instruction was given in the subjects prescribed by General Orders, No. 115, War Department, June 27, 1904, namely: Ballistics proper, ballistic machines, seacoast engineering, power, electricity proper, mines, explosives, artillery proper, and coast defense.

A statement showing more in detail the character of the instruction in each department follows:

The warm interest shown by the Chief of Artillery in the Artillery School and his unfailing support of the recommendation of the school staff have contributed greatly to its efficiency.

#### SYNOPSIS OF THE COURSE OF STUDY IN THE DEPARTMENT OF BALLISTICS AND SEACOAST ENGINEERING.

[Instructor, Capt. Frank E. Harris, Artillery Corps; assistant instructor, Capt. Alston Hamilton, Artillery Corps.]

Fifty-eight school days are allotted to this department.

This time is assigned to subjects as follows: Ballistics proper, forty-four days; ballistic machines, seven days; seacoast engineering, seven days.

##### I. BALLISTICS PROPER.

(a) *Exterior ballistics*.—Gunnery definitions, ballistic coefficient, coefficient of form; values to be employed in absence of experiment: resistance of air to the motion of oblong projectiles; empirical formulas for same; ballistic formulas and tables, their construction and use.

(1) *Direct fire*.—General formulas for same; auxiliary tables; jump. Numerical solution of all important problems involving range, time of flight, muzzle velocity, angle of elevation, angle of departure, angle of fall, striking velocity, coefficient of form, striking energy, perforation of armor, drift, effect of head, rear, and cross wind. Correction for altitude; principle of rigidity of trajectory; plotting trajectories; determination of danger spaces; velocity of rotation of rifle projectiles. Probability of fire; calculations of 50 per cent zones and probable rectangles. Method of computing a general range table, effect of variation of different elements; preparation of battery commander's and gun commander's tables. Shrapnel range tables.

(2) *Curved fire*.—Formulas and tables for low-velocity firing; application to curved fire and numerical solution of important problems in same.

(3) *High-angle fire*.—Formulas and tables for same. Euler's and Ingalls's methods. Numerical solution and problems.

(b) *Interior ballistics*.—Inflammation and combustion of grains and charges of powder. Comparison of curves of pressure of fine-grained and coarse-grained powders; of quick and slow powders. Gravimetric density, density of loading, initial air space. Combustion of grains of different forms. Velocity and pressure at any point in bore of a gun; construction of velocity and pressure curves. Amount of powder burned in gun. Characteristics of powder. Maximum pressure on projectile. Maximum pressure on breech. Sarrau's binomial and monomial formulas. Formulas for smokeless powder.

##### II. BALLISTIC MACHINES.

Boulengé chronograph. Practical work in measuring muzzle velocities and jump. Setting up and adjusting apparatus.

## III. SEACOAST ENGINEERING.

Laying out and accurately measuring a base with steel tapes. Corrections for sag, stretch, temperature, and level. Determination of azimuths of lines by observations of Polaris. Execution of a triangulation for determination of harbor base lines. Adjustment of the triangles. Orientation and graduation of gun and mortar circles. Leveling. Principles of hydrographic surveying.

A list of the text and reference books used in the course of instruction in this department follows:

*Issued for temporary use by student officers.*—Artillery Circulars M and N; High-Angle Fire, F. E. Harris; Logarithmic Tables; Ingalls's Interior Ballistics; Ingalls's Ballistic Machines; also Ordnance Pamphlet on Le Boulengé Chronograph.

*Furnished by the student officer.*—Artillery Notes Nos. 10, 11, and 22.

To meet existing conditions it was found necessary to somewhat modify the course in ballistics proper in so far as relates to all deductions involving a knowledge of the calculus. In the main features the course of study as previously established was closely adhered to, but when it was necessary to promote clearness or facilitate progress parts of the course were presented in new form or omitted entirely.

## SYNOPSIS OF THE COURSE OF STUDY IN THE DEPARTMENT OF ELECTRICITY.

[Instructor, Capt. Isaac N Lewis, Artillery Corps; assistant instructors, Capt. William P. Pence, Artillery Corps, and Capt. Clifton C. Carter, Artillery Corps.]

Eighty-seven school days are allotted to this department. This time is assigned to subjects as follows: Power (including mechanics), twenty-eight days; electricity, forty-five days; mines, fourteen days.

The time for each school day has been devoted in part to recitations, discussions, and studies, involving the theory of the subjects considered, and in much larger part to practical work in laboratory, steam plant, engine room, and machine shop. Each student is given ample opportunity to become practically familiar with every instrument, apparatus, machine, and device, mechanical or electrical, now found in any of our coast fortifications, and it is believed that the practical knowledge thus gained will prove of inestimable value in fitting these young officers for an efficient performance of their professional duties, and will better enable them to appreciate and discharge the obligations of property responsibility hereafter.

The following synopsis shows the scope of the work done in this department during the year:

## POWER AND MECHANICS (28 SCHOOL DAYS).

(a) *Elementary mechanics.*—Definitions and fundamental relations; matter, force, motion, velocity, energy, work, power, etc. Units of measurement, systems. Composition and resolution of forces. Graphic methods. Laws of motion. Laws of fluids.

(b) *Applied mechanics.*—Simple machines, pulleys, clutches, gearing, blocks and tackles, differential pulleys, hydraulic and screw jacks, pumps, and all usual forms of power apparatus.

(c) *Machine-shop equipment.*—Care and operation of standard machines and machine tools, lathe, shaper, universal milling machine, drills, planers, grinding machine, bench tools, etc.

(d) *Steam plant*.—Installation, care, operation, and test of service types of boilers. Draft, fuels, firing, feed water, boiler accessories, condensers, injectors, etc. Qualities of steam.

(e) *Steam engine*.—Simple and compound engines. Theory and general principles of construction. Valves and valve diagrams. Governors. Service types of engines. Steam indicators and their use. Study of indicator cards. Engine test for B. H. P. I. H. P., commercial efficiency and total efficiency.

(f) *Internal combustion engines*.—Theory, care, and operation and tests of service types of oil engines. Indicator cards, taking B. H. P. I. H. P. and O. H. P. Calculation of efficiencies, oil consumption, etc.

#### ELECTRICITY (45 SCHOOL DAYS).

(a) *Theory of electricity and magnetism*.—Explanation of accepted theories, magnets. Electric and magnetic circuits. Units of measurements, etc.

(b) *Primary batteries*.—Kinds of cells. Grouping cells for work. Electrolysis. Current strength and its measurement. Heat and magnetic effect of current.

(c) *Ohm's law*.—Study and discussion of Ohm's law. Instruments and their use in measuring resistance, potential strength of current. Wires and wiring. Distribution and supply of current. Electric lighting, arc and incandescent principle of the searchlight.

(d) *Direct-current dynamos and motors*.—Design, construction, care, operation, and test of dynamos and motors. Determining electrical and commercial efficiencies of same. Taking and studying characteristic curves.

(e) *Alternating-current dynamos and motors*.—Single and poly-phase currents. Characteristic curves of A. C. machines. High-frequency and high-potential experiments. Transformers, condensers, etc.

(f) *Storage batteries*.—Theory, care, operation, and tests of storage batteries. Charging and discharging, putting into and out of commission, etc.

(g) *Telephones*.—Installation, care, and operation of service types of telephones, making operator's and expert's tests of local-battery and central-battery telephones.

(h) *Searchlights*.—Theory, care, and operation of searchlights. Power plants for operating searchlights. Service types.

(i) *Telautographs*.—Theory, care, operation, and tests of service telautographs.

(j) *Telegraphs*.—Service telegraphs, time-interval clocks and bells, visual signaling systems, aeroscopes, etc.

(k) *Wireless telegraphy*.—Theory and practical operation of wireless telegraphy.

#### MINES (14 SCHOOL DAYS).

The course in mines was limited to theoretical and practical study of the new switchboard apparatus and such of the new mine material as has been actually installed at Fort Monroe. As no torpedo manual for the new system had been provided by the torpedo board at Fort Totten, it was necessary to prepare for temporary use as a text for

students of this year's class a description of the new material covering the care, operation, and test of the switchboard apparatus.

In this brief text Captain Carter, who prepared it, has very completely described all the essential features of the new system.

The time allotted to this particular course was devoted in part to other and more general electrical instruction, which had been interrupted from June 1 to June 19 on account of the combined army and navy exercises held in the artillery district.

In this connection the instructor, department of electricity, remarks:

As torpedo defense involves but one of the many practical service applications of electricity, and as there is a special school of submarine defense already established at Fort Totten, N. Y., I believe it would be for the best interests of artillery service as a whole to discontinue the course in "mines" as such in this department and to devote the fourteen school days now allotted to the course to general practical work covering all service application of electricity, including mines. It might be well to select from the graduates of the Artillery School each year a certain limited number of officers whose aptitude and practical work in this department have shown them to be well qualified for special torpedo duty, and detail them for instruction in the next year's class at Fort Totten. The work of the two service schools so far as relates to instruction in electricity would then be supplementary.

The interruption of the work of this department in June by reason of the combined exercises was a serious one. So long as our school course is limited to one year and the number under instruction remains as large as at present, it is my opinion that student officers at the Artillery School should be hereafter excused from participating in all such exercises.

I am fully in accord with these views. It is impossible to cover the whole subject of "mines" in the time which it is possible to allot to this subject; it will therefore be better to confine instruction to the limits stated and rely upon the School of Submarine Defense for the complete instruction given there.

The instructor, department of electricity, further remarks:

The mechanical and electrical plant and the laboratory facilities of the department are now at least equal, if not superior, to those of any technical school or college in this country. I deem it of first importance to keep this equipment up-to-date in all respects, and, so far as available funds will permit, to have for instruction purposes a type set of every form of electrical or power device as soon as the same has been purchased and installed anywhere in our fortifications by the Engineer or Signal Corps or by the Ordnance Department.

The Chief Signal Officer has already supplied for instruction use in the department the necessary rotary transformer, switchboards, time-interval clocks and bells, cut-outs, central battery telephones, etc., to install in the laboratory a complete type communication equipment of the latest service pattern sufficient for one fire command. This equipment will be ready for use within a few weeks. It is also hoped that the Engineer and Ordnance departments will be able to supply during the coming year a type set each of the latest pattern motors, with switches, starting boxes, and controllers, used for powder and shot hoists and for training and retraction purposes on 10-inch and 12-inch carriages.

It may not be practicable to keep entirely in touch with the present rapid electrical development in the commercial world, but each graduate of the Artillery School should be thoroughly familiar with every kind of electrical mechanism in service use.

A list of text and reference books used in the course of instruction in this department follows:

*Issued for temporary use by student officers* (books marked thus \* are principally for reference).—Power and Power Transmission, Kerr; Notes on the Steam Engine,\* Homer; Practical Lessons in Electricity, Swoope; Dynamo Electric Machinery,\* Thompson; Handbook for the use of Electricians, Anderson; Manuals Nos. 1 and 3,\* U. S. Signal Corps; Standard Wiring,\* Cushing; Storage Battery Engineering,\* Lyndon; Professional Notes, No. 27, U. S. Corps

of Engineers; current literature in the form of pamphlets, bulletins, manufacturers' handbooks, etc.; Torpedo Manual, U. S. Corps of Engineers; notes on mechanics by the instructor; special notes by instructor on new type equipment; common battery telephones, artillery type; clock and bell circuits; aeroscopes; new submarine mine material, etc.

*Furnished by the student officer.*—Telephones, Artillery Notes, No. 17; Telautographs, Artillery Notes, Nos. 4 and 6; Storage Batteries, Artillery Notes, No. 18; Oil Engines, Artillery Notes, No. 12; all artillery notes on the subject-matter treated of in this department.

#### SYNOPSIS OF THE COURSE OF STUDY IN THE DEPARTMENT OF ARTILLERY.

[Instructor, Capt. John D. Barrette, Artillery Corps; assistant instructors, Capt. Stanley D. Embick and First Lieut. James Totten, Artillery Corps.]

Seventy-eight days are allotted to this department. This time is assigned to subjects as follows: Explosives, seventeen days; artillery proper, forty-one days; coast defense, twenty days.

#### I. EXPLOSIVES.

Principles of chemistry; ingredients of explosives; progressive explosives; disruptive explosives; detonators; storage and handling of explosives; daily individual laboratory work by each student officer; laboratory apparatus and its use; tests for the principal bases and acids; nitro cellulose; colloids; picric acid and picrates; dynamite; gun cotton; tests; demolitions.

#### II. ARTILLERY PROPER.

Daily practical instruction in connection with study of principles of guns and carriages; sights and quadrants; position-finding instruments; plotting board; range board; deflection board; meteorological instruments; crusher gauge; Star gauge; jacks; fire-command artillery practice.

#### III. COAST DEFENSE.

Classification and identification of ships; kinds of armor and its distribution; armor-attack sheets; visits to modern war ships in commission and in process of construction; targets offered by war ships to coast artillery; number and kind and location of guns, mortars, mines, searchlights, and marine obstructions; torpedoes; land fronts; forms of attack on coasts; principles of defense against various modes of attack; relation of navy to coast defense.

#### LECTURES AND VISITS.

During the course, as a part of it and in connection with the subject in hand, lectures are delivered by available specialists, and visits for the purpose of study are made to modern plants. It is to be regretted that the mileage appropriation did not permit this year of the customary visits to the gun factory at the Washington Navy-Yard and the powder factory at Indian Head.

A list of text and reference books used in this department follows:

*Issued for temporary use by student officers.*—Ordnance and Gunnery, Fullam and Hart, 1903; Notes on Naval Progress; Breech Mechanism for Service Seacoast Cannon, Ordnance Department pamphlet; Instructions for mounting, using, and caring for Disappearing Carriage, L. F., 1901, for 12-inch rifle, Ordnance Department pamphlet; Instructions for mounting, using, and caring



for Mortar Carriages (model of 1896) for 12-inch mortar (steel), Ordnance Department pamphlet; Description and Instructions for the care of the 5-inch and 6-inch R. F. Guns, Ordnance Department pamphlet; Instructions for mounting, using, and caring for the 6-inch barbette carriage, model 1900, Ordnance Department pamphlet; Instructions for mounting, using, and caring for Driggs-Seabury 15-pounder R. F. Guns and their mounts, Ordnance Department pamphlet; Instructions for mounting, using, and caring for 6-pounder R. F. Guns and parapet mounts, Ordnance Department pamphlet; Instructions for using and repairing Dudgeon's hydraulic jacks, Ordnance Department pamphlet; Crusher Gauges, Ordnance Department pamphlet; Handbook of Sights for Cannon, Ordnance Department pamphlet; Description of azimuth instrument, model 1900, Ordnance Department pamphlet; Description of Swasey depression position finder, Type A, Ordnance Department pamphlet; Official Methods for Examination Smokeless Powder, 1904, Ordnance Department pamphlet.

*Issued to student officers and retained by them.*—Notes on Coast Artillery Projectiles, Department of Artillery, 1904; Notes on War Ships, Department of Artillery, 1904; Notes on Chemistry, Department of Artillery, 1904; Laboratory Notes, Department of Artillery, 1904.

*Furnished by the student officers.*—Artillery Notes, Nos. 1, 3, 5, 16, and 19; Artillery Circular D; Journal United States Artillery; All the World's Fighting Ships, Fred T. Jane, latest edition.

#### STUDENT OFFICERS.

The class of student officers for the year consisted of the following-named officers, arranged under each head according to lineal rank.

*Graduates of the distinguished grade.*—First Lieut. Arthur T. Balentine, Artillery Corps; First Lieut. Frank E. Hopkins, Artillery Corps; First Lieut. Homer B. Grant, Artillery Corps; First Lieut. Harry C. Barnes, Artillery Corps; Second Lieut. Marion S. Battle, Artillery Corps.

*Graduates.*—First Lieut. Henry H. Sheen, Artillery Corps; First Lieut. John W. Gulick, Artillery Corps; First Lieut. Sylvanus G. Orr, Artillery Corps; First Lieut. Ernest R. Tilton, Artillery Corps; First Lieut. Leonard T. Waldron, Artillery Corps; First Lieut. Ernest A. Greenough, Artillery Corps; First Lieut. Alexander Greig, jr., Artillery Corps; First Lieut. Solomon Avery, jr., Artillery Corps; First Lieut. James A. Ruggies, Artillery Corps; First Lieut. Charles C. Pullis, Artillery Corps; First Lieut. Terence E. Murphy, Artillery Corps; First Lieut. Harry W. Newton, Artillery Corps; First Lieut. Allen D. Raymond, Artillery Corps; First Lieut. James R. Pourie, Artillery Corps; First Lieut. John L. Hughes, Artillery Corps; First Lieut. John W. C. Abbott, Artillery Corps; First Lieut. Harry T. Matthews, Artillery Corps; First Lieut. Stephen H. Mould, Artillery Corps; First Lieut. Louis S. Chappellear, Artillery Corps; First Lieut. Robert F. Woods, Artillery Corps; First Lieut. Albert C. Thompson, jr., Artillery Corps; First Lieut. Theophilus B. Steele, Artillery Corps; First Lieut. Ellison L. Gilmer, Artillery Corps; First Lieut. Richard K. Cravens, Artillery Corps; First Lieut. James M. Wheeler, Artillery Corps; First Lieut. Frank J. Miller, Artillery Corps; First Lieut. Philip S. Goldermen, Artillery Corps; First Lieut. Louis T. Boisseau, Artillery Corps; First Lieut. Samuel S. O'Conner, Artillery Corps; Second Lieut. William S. Bowen, Artillery Corps; Second Lieut. Norton E. Wood, Artillery Corps; Second Lieut. Frank T. Thornton, Artillery Corps; Second Lieut. Ernest S. Wheeler, Artillery Corps; Second Lieut. Stanley S. Ross, Artillery Corps; Second Lieut. Graham Parker, Artillery Corps; Second Lieut. Albert S. Fuger, Artillery Corps.

*Completed the course but failed to graduate.*—First Lieut. Granville Sevier, Artillery Corps; First Lieut. Daniel W. Hand, Artillery Corps; First Lieut. Lanier Cravens, Artillery Corps; First Lieut. John McBride, jr., Artillery Corps; First Lieut. George O. Hubbard, Artillery Corps; First Lieut. George F. Connolly, Artillery Corps.

*Failed to complete the course.*—First Lieut. Fred T. Austin, Artillery Corps, absent, sick, during the entire course of ballistics proper, declared proficient in all other subjects of the school course; Second Lieut. Byrd A. Page, Artillery Corps, transferred to the Infantry, per paragraph 13, Special Orders, No. 83, War Department, current series; Second Lieut. Charles S. Silcox, Artillery Corps, transferred to the Infantry, per paragraph 4, Special Orders, No. 280, War Department, series of 1904.

## SCHOOL FOR MASTER GUNNERS.

This school, under the provisions of paragraph 80, General Orders, No. 115, War Department, 1904, is a part of the Artillery School.

The programme followed this year was essentially that laid down in General Orders, No. 74, War Department, 1904. On account of the joint army and navy exercises, the course in "artillery methods and instruments" was eliminated, and the class assigned to duty from June 1 to 17 in connection with the fire-control system of this post.

Examinations were held from June 20 to 26, with the result that 13 out of the 16 members made the percentage required to pass them. The course in drawing was the same as last year, following also the general order quoted. Three men failed in drawing, two of whom also failed in examination on part 1 of the course. In addition to plates made from models constituting the regular course of instruction in drawing, the class constructed 32 practical charts, assorted, for various artillery commands of the service. A detailed list thereof is submitted herewith and marked "Appendix A."<sup>a</sup>

The class numbered originally 21 men and finished with 16, of whom 13 received certificates of proficiency. All of the 5 men dropped during the course were discharged on account of expiration of their enlistments and failed to reenlist.

The class consisted of 21 men, as follows:

*Completed the course and graduated.*—Edward P. Thompson, corporal, One hundred and twenty-third Company, Coast Artillery; William Hill, corporal, One hundred and third Company, Coast Artillery; Joseph M. Cole, sergeant, Eighty-sixth Company, Coast Artillery; Thomas F. McNeill, sergeant, One hundred and twenty-sixth Company, Coast Artillery; Johann J. Linck, sergeant, Eighty-first Company, Coast Artillery; Edgar M. Burr, sergeant, Fiftieth Company, Coast Artillery; Edwin C. Forbes, sergeant, Sixty-fifth Company, Coast Artillery; Richard E. Wilson, private, One hundred and twelfth Company, Coast Artillery; Lucien H. Taliaferro, sergeant, One hundred and tenth Company, Coast Artillery; William E. Cooke, sergeant, Ninety-third Company, Coast Artillery; Charles W. Dauver, sergeant, Thirty-ninth Company, Coast Artillery; Edward C. Kuhn, sergeant, Fifty-second Company, Coast Artillery; Joseph J. Gladden, corporal, Eighty-ninth Company, Coast Artillery.

*Completed the course but failed to graduate.*—Wilbur E. Thompson, sergeant, Thirtieth Company, Coast Artillery; Harry Wiker, sergeant, One hundred and sixth Company, Coast Artillery; John E. Conly, private, Fifth Company, Coast Artillery.

*Discharged and failed to reenlist.*—James F. O'Flynn, sergeant, Sixty-fourth Company, Coast Artillery; Walter J. Potter, sergeant, Fifty-eighth Company, Coast Artillery; George E. Cripps, sergeant, Twenty-fourth Company, Coast Artillery; Samuel J. Doughty, sergeant, One hundred and fifteenth Company, Coast Artillery; John P. Evans, private, Twenty-third Company, Coast Artillery.

Appendix B<sup>a</sup> contains the questions asked on examination in Part I.

During the course in mathematics and artillery, practical instruction was given at the batteries in the methods and material of the fire-control system at this post.

The class was also present at all record artillery practice of the post and Artillery School.

Graduates of the school for master gunners have been taken from their companies for nearly one year to receive instruction to qualify

<sup>a</sup> Omitted.

them for the highest grade of work required of the artillery soldier. There should be not less than three master gunners in each company of coast artillery.

The following summary will give a good idea of the work they are qualified to execute, and which should be performed under the supervision of the district artillery engineer:

Surveying and triangulation to determine the length and azimuth of horizon base lines.

Orienting guns and determining the height of gun trunnions and position finders above mean low tide.

Construction of various harbor charts for use by battle, fire, and battery commanders.

Construction of difference charts.

Construction of topographical maps of the country and coast of the artillery district with a view of providing proper defense against landing parties and land attacks on the forts.

Computations and blueprints.

Experience has shown that it is impossible to keep men of such attainments in the Coast Artillery for the pay given to other men in the companies.

Legislation should be asked to provide for graduates of the School for Master Gunners sufficient rank and pay to induce them to remain in the service.

For such purpose the following legislation is recommended:

AN ACT To increase the efficiency of the Coast Artillery, United States Army.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That from and after the approval of this act any enlisted man of whatever grade of the Coast Artillery, United States Army, who holds a certificate of proficiency in the course of instruction for qualification as a master gunner, prescribed or to be prescribed by the Secretary of War, shall receive fifteen dollars per month in addition to the pay of his grade and length of service: *Provided,* That no company of Coast Artillery shall have more than three master gunners: *Provided,* That the benefit of the certificate of master gunner shall be forfeited if the holder thereof be out of the Coast Artillery service for more than three months: *Provided further,* That any enlisted man of the Coast Artillery holding such certificate at the date of his retirement shall be retired with the pay and allowance of his grade, inclusive of his additional pay as master gunner.

Examination papers of 36 candidates for the next class were received under General Orders, No. 74, 1904. War Department.

Twenty-three men passed satisfactory examinations and 13 failed in arithmetic.

Twenty-one of the successful candidates, the greatest number that can be properly accommodated, were recommended to constitute the next class.

The instructor calls attention to the fact that, in spite of the most careful examination of the entrance papers of candidates for admission to the school, in conjunction with consideration of their age, previous service, record, and recommendations, it happens always that two or three men are admitted who, it is very soon seen, will not be able to master the course of instruction, and whose retention in the school is a decided drawback in many ways, and recommends that they be ordered back to their posts at the beginning of the calendar year.

The condition described has undoubtedly arisen in the classes for the past two years, but I have not heretofore approved the recommendation that the men be relieved from duty in the school for the reasons that the number of candidates that can be admitted is very limited from want of capacity of the school; that substitutes can not be admitted at such a late date, and because such men, even though they do not graduate, will still derive a great deal of benefit from the school course and be proportionately more valuable as noncommissioned officers—here is the further point that candidates are admitted after a very trivial examination, which in no way indicates their capacity for the course they are required to take, and a general statement that they have studied or have some knowledge of such subjects as constitute the difficult part of the course—the verification of which statement is not required. It seems a doubtful policy and hardly just to the men to turn them out because it develops after admission that they probably will not graduate, as long as they are doing their best. The remedy for this condition seems to be in prescribing a somewhat more rigid examination of candidates and the actual determination of their qualifications in algebra, geometry, and trigonometry. Without some knowledge of these subjects a candidate is very likely to fail, as time does not suffice during the course to take them up ab initio, and as the Government goes to considerable expense on his account the interests of the service would be better served if his qualifications were more accurately known before sending him and the man himself spared the mortification of failure.

#### ARTILLERY SCHOOL LIBRARY.

The additions to the library during the year have been limited to such books on military subjects as have been purchased from the school appropriation or have been furnished from the War Department, the other Government Departments, and a few other sources.

The library has been used constantly by the student officers in their studies and investigations and by others who are accorded the privilege.

The library now contains on its shelves 13,577 volumes, including duplicates, 2,051 pamphlets, and 1,779 maps. During the year 316 volumes, 41 pamphlets, and 115 maps have been added to it.

The library also has the benefit of the exchanges of the *Journal of the United States Artillery*, which is printed on the Artillery School press. These exchanges comprise over 150 foreign and domestic periodicals. Collectively this offers to the student officers the current professional thought of the world on military, naval engineering, and other scientific subjects. Their value can not be overestimated.

The back volumes of these periodicals are bound at the school bindery, and the bound volumes are then entered in the catalogue of the library.

In this way, year by year, a very complete collection of military and modern technical artillery literature is being made.

The most pressing need of the library, and one that should receive immediate attention, is the erection of a building of modern construction designed to meet requirements, with due allowance for future accessions, and so arranged as to offer to officers proper facilities for using the library in connection with their work at the school. The

present building is wholly unsuitable for the proper shelving and arrangement of books, and its interior arrangement is such that officers wishing to read or do any serious work in the library at present suffer inconvenience and constant interruptions.

The building now used is an ordinary frame structure, 60 by 35 feet, heated by stoves and lighted by electricity. It is walled and ceiled on the interior with yellow pine. A fire starting from any cause would instantly spread and make it impossible to save any considerable portion of the library.

The capacity of the building is far too small and the building itself entirely unsuited to the requirements the library should fulfill in its relation to the school. A large number of books and pamphlets have been stored in an old ordnance stable, thus rendering them comparatively inaccessible.

In the library itself the shelves are practically all filled, so that the insertion of new books in their proper places in the scheme of classification is very difficult and sometimes impossible without complete rearrangement of the whole section. The point has now been reached at which it becomes necessary to keep a number of books on the floor, as there is no other space available.

It would seem that the library, with its large amount of useful reference material properly classified and well arranged so as to be readily accessible, should form an important feature of the school. But this is possible only in a new building suitably planned to answer the needs of a modern library.

It will be seen, therefore, that a new library building of larger capacity and fireproof in its construction is most urgently needed. This building should be of such capacity as not only to contain the present library, but also to allow for future additions at the rate of about 1,000 volumes a year.

In view of the special character of this library and its importance to the artillery service, it is urgently recommended that its proper housing receive immediate attention. It is most necessary that its condition be brought to a high standard and maintained there.

The library is the principle of life of every institution of instruction, whose tone can never rise higher than the means for teaching its instructors.

Work during the year has been devoted to reclassifying the library, rearranging the books and sorting out duplicates, and card indexing. The work has been slow, due to the lack of any competent clerical help and to the limited time that can be devoted to it by the librarian, who has several other duties to perform; but it progresses, and the card indexes of authors and subjects have been considerably increased.

The greatest difficulty, however, lies in overcoming the natural unsuitableness of the building for a library of this size and in getting the books in any kind of order, so that a particular one may be readily found or that a person investigating a subject can see what the library contains in reference thereto.

For the last twenty-five years the necessity for a larger building of fireproof construction and design for library purposes has been annually reported upon so persistently that perhaps it has come to be regarded as perfunctory; but I can not allow this opportunity to pass without again calling attention to this crying need and urging

immediate action by proper authority. It is no common need, but in view of the special character of this library and its importance to the Artillery School and the artillery at large, a most pressing one, and if the standard of a "library" is to be maintained should receive immediate attention.

The librarian, Capt. Andrew Hero, jr., Artillery Corps, recommends—

That some provision be made for disposing of duplicates and text-books no longer in use at the Artillery School.

There are now on hand over 600 duplicates and over 400 text-books that have been used at various times in the school. Many of these are standard books and of present value. It is thought that if they could be distributed to post libraries, for example, they might serve a useful purpose.

This recommendation is concurred in. Some of these books might be useful at other service schools and would be an addition to any post library.

#### CLERICAL INCREASE NEEDED.

In 1894 a civilian clerk was appointed to the Artillery School. At that time the clerical work was well within the capacity of a competent man, but the work has increased until it is beyond the capacity of one man, however competent. Less than three competent clerks can not do the work without working overtime and at night. It has been possible occasionally to find men of sufficient intelligence and good enough penmen among the enlisted men of this command, but no reliance can be placed on this source, and, after being faithfully tried for years, it can be safely said that the expedient of detailing enlisted men has proven almost wholly unsatisfactory. It is due to unremitting efforts of the adjutant and the one civilian clerk, working entirely without regard to hours, that the work of the office has been kept up to date. It is an obvious fact that both have been greatly overworked, and it is equally obvious that the present condition of affairs should not continue.

In the first place, competent clerks and typewriters are not frequently found in the ranks, and when found there is generally some disqualification as to habits or otherwise which accounts for their being there. Such men are wholly unreliable, and it is usually necessary to take any man who can write a fairly good hand and try and qualify him for the position, with very unsatisfactory results. Such details are not sought by enlisted men, and they soon tire of them on account of the exacting and confining nature of the work, and either apply to be relieved or are appointed noncommissioned officers. A man detailed for or continued at such duty against his inclinations or interest does not make a reliable clerk. The clerk of the Artillery School (Mr. Keller) keeps the records of the artillery board, the Artillery School board, and all disbursements of the Artillery School, including the disbursements for the printing office and bookbindery, artillery notes, memoranda, etc. He has charge of all correspondence relating to the school and to student officers and the master gunner's class. It will appear from the following statements that the amount of work greatly exceeds the powers of any one man, the increase in recent years being as follows:

Letters received from January 1, 1901, to 1903, an increase of 400 per cent.

Letters sent from disbursing office for the same period, an increase of over 200 per cent.

Letters sent from disbursing office for the same period, an increase per cent. Since 1903 the amount of work has not greatly increased, but on account of the present larger class of student officers it will necessarily be greater from now on. In view of the foregoing it is urgently recommended and requested that an additional clerk of the classified service, who shall be a stenographer and typewriter, be allowed the Artillery School, and that the salary of \$1,200 for such additional clerk be included in the estimate for the fiscal year 1907. It is also urgently recommended that an increase of \$200 per year in the salary of the present civilian clerk, Mr. Keller, be also provided for. He has worked honestly and faithfully, entirely without regard to hours, and has justly earned this small increase in salary.

The want of a stenographer has been most seriously felt, and the office work of the commandant and adjutant greatly increased in consequence. The outdoor work of the commandant, who is also the commanding officer of the post of Fort Monroe, in supervising drills, parades, etc., consumes almost the entire forenoon, so that office work is relegated to the afternoon and can rarely be completed within the day. It is believed that all public offices of importance and other service schools are more liberally provided with clerical assistance than is the Artillery School at the present time.

#### GARRISON SCHOOL IN ITS RELATION TO SERVICE SCHOOLS.

It is desired to call attention to the relation which it is believed should exist between the garrison school, the service schools in general, and the Artillery School in particular, and to reiterate and emphasize what I have already said on this subject.

The provision of the order governing garrison schools which requires certain officers to pass a preliminary examination in mathematics prior to entering the first term of the garrison school years is a move in the right direction, but does not go far enough. It is all right for the officers who pass, but for those who fail, and such cases are not wanting, it makes no adequate provision. It is true that all officers should have pride enough in their professional standing to do their best under all circumstances, but there are, unfortunately, many cases in which officers, from various causes, are really unable to pass even the elementary examination required. Entering the fact upon an officer's efficiency record does not meet the case. The object of all service schools is to qualify officers for the efficient performance of their duty, and a disqualifying want of knowledge at any stage makes it almost useless and a waste of time to proceed further in certain directions. Thus it seems evident that an officer who has failed to pass the preliminary examination in mathematics can not take up ballistics with any advantage to himself or prospect of success. It is also evident that he can not acquire a full and complete knowledge of the various instruments and devices connected with the prescribed position-finding service. To require him to proceed from course to course, simply noting failures on his efficiency record, may carry out a system, but surely will not qualify the officer. He will be more or less out of his depth all the time, and the time of all officers

of artillery is now so fully occupied that one can not more than keep up with his daily work; he can not recover lost ground.

Primarily an officer should be qualified mentally and physically to meet all requirements of the service, and if after honest effort he is unable to do so, some other remedy will have to be applied. If failure is due to want of effort or indifference, the remedy seems obvious—it is useless to waste time on such a man; he is unfit for service. I think it bad policy to force any man ahead of his ability to master the course of instruction in hand. Admitting the honest effort, each step in any course of instruction should be mastered before proceeding to the next. A sufficient knowledge of mathematics should be acquired before taking up ballistics and any other kindred subjects in the garrison school, and wanting such knowledge, it is impossible for any man to take the course at the Artillery School; hence he can never become a thoroughly efficient artillery officer. A course in mathematics preliminary to all service schools thus seems necessary for certain officers, and such officers should be compelled to acquire the requisite proficiency before proceeding further.

In conclusion, I give as my fixed conviction that the Department should take some more decided stand in regard to failure in the garrison school. Simply noting such failure in efficiency records will not prove corrective. An officer wanting the zeal and professional pride to do his best will not be inconvenienced by the knowledge that his failure will be made of record; he either is or is not competent, and failure in either case should meet its just reward.

#### REMARKS.

Especial attention is invited to a matter of great importance to the artillery arm, resulting from recent considerable increase of the personnel of that arm. Many officers have received appointments who have not had the advantage of a technical education and service, and some are sadly deficient in proper education of any kind. Strictly speaking, no man can become an efficient artillery officer who can not successfully complete the courses of instruction in the garrison schools and at the Artillery School, and such an officer is an absolute detriment to the service. If he can not master the technical duties he is almost useless as a company officer, and obviously unfitted to command a company. Experience has shown that there are officers who receive the course of instruction at the Artillery School who study zealously—in point of fact, do their best—and yet are unable to reach the standard of proficiency which will entitle them to a diploma of graduation. With this class of men it is a question of ability, which no amount of instruction can supply. Any man who does his best is entitled to consideration, and some have shown considerable aptitude and efficiency in a practical way, but were unable to qualify in the technical requirements of the artillery service.

Such men can not graduate unless the standard of proficiency is lowered, which is obviously undesirable, and the question remains whether or not they should be continued in an arm of the service for which they can not qualify and the duties of which they can not master. Officers who have the necessary ability, but, from disinclination to apply themselves, fail to graduate, should be dealt with rigorously. As long as an officer can qualify for promotion by pass-



ing the examination required without regard to his standing in the garrison school and at the Artillery School, the situation will be taken advantage of by those lacking in a proper sense and appreciation of their duties and obligations as officers of the Army. Experience has shown that an officer can then qualify for and actually receive promotion while at the Artillery School and at the same time be pronounced deficient in his school work, while an officer in the same class who, under very trying circumstances, had been pronounced deficient in certain subjects on examination for promotion did, by hard and unremitting work, reach the required degree of proficiency for graduation at the school. It thus appears that an officer forfeits no claim to promotion by failure at the school, and there is no way in which he can be disciplined unless his neglect is so great as to justify trial by court-martial.

It also appears that high standing in the garrison and service schools profits him nothing if he fails to make the required percentage in any one subject in his examination for promotion.

This, it appears to me, belittles the garrison and service schools, and subordinates them unduly to a single examination of more or less limited scope.

It is therefore recommended that Congress be requested to enact the legislation necessary to eliminate from the Army artillery officers who, after a course of instruction at the Artillery School, have demonstrated their unfitness for the artillery service, or that no officer in the artillery arm shall be promoted against whom stands a record of failure at the Artillery School until he shall have passed a most searching written and practical examination in the entire course; in the case of a second failure the officer to be discharged, as is now provided by law in case of an officer examined for promotion.

R. D. POTTS,

*Colonel, Artillery Corps, Commandant.*

THE MILITARY SECRETARY, U. S. ARMY,

*Washington, D. C.*



## REPORT OF THE ENGINEER SCHOOL.

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ENGINEER SCHOOL, U. S. ARMY,  
*Washington Barracks, Washington, D. C., September 8, 1905.*

GENERAL: I have the honor to forward herewith the annual report on the Engineer School, Washington Barracks, D. C., for the fiscal year ending June 30, 1905.

The regulations for the government of the school are to be found in Army Regulations and in General Orders, Nos. 124 and 136, War Department, 1905.

The purposes of the school, as laid down in General Orders, No. 136, are "to prepare the junior officers of the Corps of Engineers for the active duties of their arm and corps; to make researches into such branches of science as relate to the duties of the Corps of Engineers; to disseminate information so obtained; to make such experiments and recommendations and to give such instruction as may be necessary for the engineering work of the Army."

In addition to the commandant, who is also the commanding officer of the post of Washington Barracks and of the Second Battalion of Engineers, but one officer was attached to the school during the year.

First Lieut. A. E. Waldron, Corps of Engineers, was on special duty connected with the department of electrics until relieved from duty at the post on May 1, 1905. He was at the same time in command of Company G, Second Battalion of Engineers.

As stated in the last annual report, the instruction of officers at the school was suspended in April, 1903, for one year by the Secretary of War, upon the recommendation of the Chief of Engineers and with the approval of the War College Board, and in May, 1904, this suspension was continued for another year for the same reason—the urgent demands of the service for engineer officers for other and more active duties. The conditions which brought about this suspension have ameliorated to such an extent as to permit of the full resumption of the functions of the school, and the instruction of officers will be resumed during the coming winter under the system prescribed in General Orders, No. 136, War Department, 1905. The course of instruction will be similar to that of previous years, as found on pages 689–690 of the Annual Report of the Chief of Engineers for 1903, but the detailed programme has not yet been submitted for the approval of the Chief of Staff. As the instructors for the school will not be available for duty until October, it will not be practicable to submit this programme until that time. It will, under existing regulations, contemplate a course of two years and be divided into the three departments of military engineering, civil engineering, and electrics, including mechanical engineering.

While the instruction of officers has been suspended during the past two years, the other functions of the school have been carried on without interruption and with success, bearing in mind particularly the numerous duties upon which all officers at the post have been engaged and the necessarily frequent changes in commissioned personnel.

#### BUILDINGS.

Upon the removal of the Engineer School from Willets Point, N. Y., to Washington Barracks, D. C., in October, 1901, there were not found at the latter post any buildings suited to the purposes and needs of the school. To accommodate the latter it was practicable only to adapt to its needs as well as might be, such old buildings as were available for the purpose and not absolutely required for garrison needs.

The school offices were located in the post administration building, and in one room of the same building was placed a portion of the school library. About a year ago the remaining books of the library, after remaining for more than two years in packing boxes, were placed on rough shelving in a portion of an adjoining building. An old brick guardhouse was converted into a photograph laboratory and a double set of officers' quarters has been used for study and lecture rooms and offices for instructors. In the latter there was also crowded, in a very contracted space, the electrical laboratory, and the power plant of that department has been sheltered in a temporary frame building near by.

A small frame building for a field astronomical observatory was also erected in the vicinity. The school shops, originally installed in a brick stable, have recently been removed for greater convenience to an abandoned quartermaster and commissary storehouse, and the school printing office is crowded into a portion of the basement of the administration building, where there is neither sufficient space nor light, and where the dampness is excessive. The valuable collection of models, photographs, and apparatus belonging to the museum of the school has, for lack of any space at all in which to display it, remained since 1901 in the packing boxes in which it was shipped from Willets Point.

The facilities and appliances for carrying on the work of the school are, therefore, scattered through various old buildings absolutely unsuited to school requirements and lacking the space to accommodate them all, even in a crowded and most unsatisfactory condition. No other service school can be so hampered in this respect in accomplishing the ends set before it and this school, located at the national capital, should as early as practicable be supplied with the material facilities necessary to enable it to serve fully its purpose and to become in all respects a credit to the service.

The most urgent present requirement of the school is for such buildings as are needed for its complete accommodation. The approved plans for the reconstruction of the post of Washington Barracks and for the construction at this post of the building for the War College, contemplate the providing of suitable buildings for the use of the school. These plans also contemplate the removal of all of the old structures in which the various elements of the school are now inadequately housed, but these buildings can not be removed nor can the approved plan for the post be approximately completed until the needed accommodations

for the school are provided. It is, therefore, earnestly recommended that such appropriations as are necessary for the erection of the buildings planned for the Engineer School be made at the earliest practicable time, since at least two years must elapse before present conditions can be bettered, even under the most favorable conditions.

#### LIBRARY.

An essential element in the success of the school in performing the various functions assigned to it is the collection of technical books, periodicals, and pamphlets forming the school library. This library has been accumulated during the past forty years partly by purchase and partly by donation, and, numbering now several thousand volumes, may be safely claimed to be one of the most important collections upon military engineering topics in this country. In addition, it covers many civil, mechanical, and electrical engineering subjects and contains many books of reference of value to military students.

The library requires, for the full utilization of its material, to be properly classified, catalogued, and indexed, and to be provided with quarters ample for the display and accommodation of its contents. The latter need has been fully stated above in the recommendations regarding school buildings, the present accommodations being neither suitable, safe, nor sufficient for the purpose.

The thorough cataloguing and classification of the library, impossible under conditions formerly existing at the school or with the regular clerical force, was commenced a few days prior to the beginning of the fiscal year, and, with some months interruption resulting from inability to secure a suitable employee, has been in progress to date. The completion of this work will require at least another year's services of the civilian expert now engaged upon it, and will make the valuable school collection of technical literature available for all the researches carried on by our officers.

In addition to many books received by donation during the year from the Executive Departments and from other sources, 515 volumes were acquired by purchase and there were received under regular subscriptions 27 periodicals, of which 17 are American, 5 English, 4 French, and 1 German. Advantage was also taken of existing conditions to have bound the most valuable part of the many pamphlets and unbound books and 955 volumes of pamphlets, books, and periodicals were bound during the year. It is impracticable with the means available to acquire all of the current technical literature and periodicals that would be useful in the school library. An attempt is made, however, to secure all current literature of value on military engineering topics, and to maintain the library thoroughly complete and up-to-date in this respect. Other technical works are obtained when of marked value or as the need for them arises. A number of manuscripts upon current military topics of interest have been received or copied, and a number of translations for the library have been made by officers of the post.

#### LABORATORIES AND SHOPS.

The electrical laboratory has been under the charge of First Lieut. A. E. Waldron during the greater part of the year, with the assistance of a civilian engineer. This laboratory is now equipped and in readi-

ness for the resumption of instruction and requires but the addition of minor apparatus or of new appliances as they become available from time to time. Its equipment, all of a modern type, includes one 15 kilowatt direct-connected D. C. set with a vertical marine type of engine, one 25 horsepower oil engine, one 25 horsepower horizontal high-speed steam engine, one 15 kilowatt belted D. C. generator, one 12 kilowatt belted alternator, one 15 horsepower induction motor, one 75 kilowatt experimental combined A. C.-D. C. machine with D. C. motor, one 25-ampere storage battery, and one 36-inch searchlight, together with the necessary boiler, switch boards, transformers, and a varied supply of instruments in the laboratory, including a photometer.

The laboratory power house has been in operation throughout the year, furnishing light to the school offices, current to the storage battery, and power to the printing office and machine shop, both of which are provided with electric motors for all power-driven machines. The officer charged with the reconstruction of the post is also supplied with current under an informal agreement by which he provides an engineer and an equitable portion of the fuel.

Some minor additions were made to the equipment during the year, including a small condenser. This has been used of late to supply distilled water to the enlisted personnel of the post, an epidemic of typhoid fever having occurred in Washington, D. C., from which the post draws its water supply.

The photograph laboratory has been in operation throughout the year, and for some months under the charge of a civilian photographer, a sufficiently expert photographer not having been developed among the enlisted men of the command. The instruction of selected enlisted men was carried on during the winter season and the regular photographic work of the school throughout the entire year. Some additions were made to the laboratory equipment, including a copying camera and the necessary material for filing safely and accessibly the collection of negatives.

The school shops had been moved to the building formerly occupied as a quartermaster and commissary storehouse and abandoned upon the completion of a new building. The shops had been located three years ago in a brick stable built for the artillery and, besides being inaccessible through its distance from the other buildings now occupied, it was desired by the constructing officer for demolition in connection with the construction of the War College building. They can now remain in their present location until a suitable permanent building is provided for them.

These shops include carpenter, blacksmith, masonry, and plumbing shops for the instruction of enlisted men, and a machine shop for such instruction and for the general use of the school and the Engineer Depot. This latter shop contains a metal lathe, tool-maker's lathe, shaper, drill press emery grinder, band saw, and pattern-maker's lathe, in addition to the necessary hand tools. All the power tools are of modern design, electrically driven by power from the power plant of the electric laboratory. The machine shop is in the charge of the civilian engineer and machinist of the school.

Only minor additions were made to the shop equipment during the year. Much useful work was accomplished, and the trade school for enlisted men was continued through its regular course during the winter season.

## PRINTING OFFICE.

The school printing office is located in the basement of the post administration building. Sufficient space is not available for its purposes and the location is unsuitable for other reasons, particularly on account of poor light and of dampness in the summer season. A civilian printer has had charge of the office, assisted by two or three enlisted men detailed from the engineer battalion.

In addition to the facilities for hand composition, the office equipment includes a Simplex typesetting machine, one small hand press and two small power presses, paper cutter, folder, stitching machine, and a small stereotyping outfit. A part of these machines are electrically driven by power from the electric laboratory.

The general work of the office embraced much job work for the school in the form of letter heads and blanks, but its principal occupation is the printing of the papers issued by the school upon engineering topics of current interest to the officers of the Corps of Engineers. During the year the following numbers of the "Occasional Papers" were printed in an edition of 300 copies each:

- No. 11. Reprint of Lectures and Essays on Coast Defense.
- No. 12. Notes on Intrenching Tools.
- No. 13. Search-Light Projectors for Coast Defense Service.
- No. 14. Early Days of the Engineer School of Application.
- No. 15. Water Supply of Washington, D. C.
- No. 16. Historical Papers Relating to the Corps of Engineers.
- No. 17. Organization of Engineer Troops.
- No. 18. Brief History of Works Erected for the Defense of Portland, Me.
- No. 19. Russian Provisional Fortifications.

In addition to the above there was reprinted an edition of 300 copies each of Nos. 1, 2, and 3, of which the original small edition had been exhausted.

The work of the school press forms one of the most important functions of the school and supplies in part the need of a technical paper for the corps. The labor in the preparation of the various papers printed is onerous and has been borne almost entirely by the officers serving at this post in addition to their regular duties. Their labors are deserving of the heartiest appreciation and of the assistance of other officers in the maintenance of the series of papers now in progress. The number, bulk, and value of these papers issued during the year exceeded largely the records of previous periods, but this work can be continued on the same scale only by the cooperation of officers on duty elsewhere.

## TRADE SCHOOL FOR ENLISTED MEN.

A part of the work inaugurated at the school in 1901 has been the manual training of selected enlisted men from the battalion of engineers on duty at the school. The system of recruitment in our Army supplies to the engineer battalions enlisted men that are, as a whole, of excellent quality, but it fails to furnish in sufficient numbers men skilled in the trades or professions necessary for the proper accomplishment of many of the important duties of engineer soldiers in our service. These troops, in addition to wielding the pick and shovel, must be bridge builders and be able to accomplish in the field the many things for which mechanics are employed in civil life. They are also called upon to do much of the survey and reconnaissance duty of the Army in peace and war.





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## REPORT OF THE SCHOOL OF SUBMARINE DEFENSE.

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## REPORT OF THE SCHOOL OF SUBMARINE DEFENSE.

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SCHOOL OF SUBMARINE DEFENSE,  
*Fort Totten, N. Y., August 15, 1905.*

SIR: In accordance with paragraph 111, General Orders, No. 115, War Department, 1904, I have the honor to submit the following report on the School of Submarine Defense for the school year ending August 15, 1905.

### CHANGES IN THE SCHOOL STAFF.

Since my last annual report (August 15, 1904) the following changes in the school staff have taken place:

On September 30, 1904, Capt. Charles J. Bailey, Artillery Corps, was, at his own request, relieved from duty as disbursing officer of the school and torpedo depot by Special Orders, No. 230, War Department, 1904, and on the same date and by the same order Capt. Robert E. Callan, Artillery Corps, was assigned to such duty instead.

On June 13, 1905, Capt. Charles F. Parker, Artillery Corps, was, at his own request, relieved from duty as instructor in the electrician sergeants' department of the school by Special Orders, No. 136, War Department, 1905.

On July 31, 1905, by Special Orders, No. 175, War Department, 1905, Capt. Harold E. Cloke, Artillery Corps, was detailed as instructor of the electrician sergeants' department of the school.

### CHANGES IN TORPEDO BOARD.

Maj. F. S. Harlow, Artillery Corps, was appointed a member of the torpedo board by Special Orders, No. 214, War Department, 1905.

Capt. R. E. Callan, Artillery Corps, was appointed a member of the Torpedo Board by Special Orders, No. 230, War Department, 1904.

Capt. H. E. Cloke, Artillery Corps, became a member of the Torpedo Board July 31, 1905, by virtue of his detail as the head of a school department.

### OFFICERS' DIVISION.

The class of student officers for the year was detailed by Special Orders, No. 56, War Department, 1904, and consisted of the following officers of the Artillery Corps: Capt. Otho W. B. Farr, Capt. Adrian S. Fleming, Capt. Joseph P. Tracy, Capt. James W. Hinkley, jr., Capt. Edwin O. Sarratt, Capt. Mervyn C. Buckey, Capt. Frederick E. Johnston, Capt. Hugh LaF. Applewhite, Capt. Willard D. Newbill, Capt. Harold E. Cloke.

These officers, with the exception of Capt. James W. Hinkley, jr., and Capt. Mervyn C. Buckey, reported for duty at the school on Sep-

tember 1, 1905; the latter reported September 15, 1905, having been on duty at the Louisiana Purchase Exposition until that date.

On July 9, 1904, Capt. Robert E. Callan, Artillery Corps, was detailed to take the course of instruction at the school as a student officer by Special Orders, No. 160, War Department, 1904, and joined September 1, 1904. On September 30, 1904, by Special Orders, No. 230, War Department, 1904, he was relieved from duty as a student officer of the school and detailed as disbursing officer. On the same date and by the same order Capt. Earle D'A. Pearce, Artillery Corps, was detailed as a student officer of the school, and joined October 18, 1904.

On July 31, 1905, Captains Farr, Fleming, Tracy, Sarratt, Buckey, Johnston, Pearce, Applewhite, Newbill, and Cloke completed the course prescribed for student officers satisfactorily; were given certificates of proficiency under the provisions of paragraphs 116, General Orders 115, War Department, 1905; were reported to the War Department as graduates, and on August 2 were relieved from further duty at the school.

The following-named officers visited the school during the year to familiarize themselves with the work of the school and with the submarine-mine system: Maj. Hamilton Rowan, Artillery Corps, acting inspector-general; Capt. F. S. Strong, Artillery Corps, acting inspector-general, per Special Orders 260, War Department, 1904; Capt. Isaac N. Lewis, Artillery Corps, per Special Orders 296, War Department, 1904.

For special reports by the instructors of the two departments of the officers' division of the school on the work of their respective departments during the school year see Appendixes B and C.<sup>a</sup>

#### ENLISTED MEN'S DIVISION.

##### ELECTRICIAN SERGEANTS' DEPARTMENT.

On September 1, 1904, the following-named enlisted men, candidates for appointment as electrician sergeant, having reported at the school, per Special Orders 177, War Department, 1904, began work as a class: Sergt. Creighton Kerr, Forty-third Company, Coast Artillery; Sergt. Lewellyn A. McLaughlin, Forty-fourth Company, Coast Artillery; Sergt. Fred C. Winters, Eighty-first Company, Coast Artillery; Corpl. Frank G. Courtney, Eighty-first Company, Coast Artillery; Corpl. Ashford C. Singleton, Eighty-fourth Company, Coast Artillery; Corpl. Charles Hipp, One hundred and twelfth Company, Coast Artillery; Corpl. Lewis P. Toft, Tenth Band, Artillery Corps; Corpl. Paul Crank, Company A, Sixth Infantry; Corpl. Thomas T. Cochrane, Fifty-fourth Company, Coast Artillery; Artificer Forrest W. Shaner, Twenty-seventh Battery, Field Artillery; First-class Private W. S. Williams, Company H, Second Battalion Engineers; Private Walter J. Morris, Fourth Company, Coast Artillery; Private John T. Leary, Fourth Company, Coast Artillery; Private Ralph R. Geltz, Seventy-first Company, Coast Artillery; Private Arthur B. Clarke, Seventy-fifth Company, Coast Artillery; Private Hubert J. Heinrichs, One hundred and twentieth Company,

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<sup>a</sup> Omitted.

Coast Artillery; Private Amos J. Carr, Fifty-fourth Company, Coast Artillery; Private Edward F. Cole, Fifty-fourth Company, Coast Artillery; Private William Engleman, Fifty-fourth Company, Coast Artillery; Private Walter E. Palmer, Fifty-fourth Company, Coast Artillery; Private Charles L. Price, Fifty-fourth Company, Coast Artillery; Private John Ryan, Fifty-fourth Company, Coast Artillery.

On recommendation of the school board, three of these men on account of their evident unfitness for the position of electrician sergeant, were relieved by the War Department from duty at the school and ordered to return to their respective companies.

Private Hubert J. Heinrichs, One hundred and twentieth Company, Coast Artillery, was discharged on account of expiration of his term of service during the school year and failed to reenlist.

On May 13, 1905, Sergt. Creighton Kerr, Forty-third Company, Coast Artillery; Sergt. Lewellyn A. McLaughlin, Forty-fourth Company, Coast Artillery; Private Ashford C. Singleton, unassigned, Coast Artillery; Private Edward F. Cole, unassigned, Coast Artillery; Private Walter E. Palmer, unassigned, Coast Artillery; Private Forrest W. Shaner, unassigned, Coast Artillery, having satisfactorily completed the entire course in electrician sergeant's department, were reported as qualified and recommended to the War Department for appointment as electrician sergeants, and on July 21, 1905, Private Ralph R. Geltz, unassigned, Coast Artillery, and Private John Ryan, unassigned, Coast Artillery, having also completed the entire course, were similarly recommended for appointment. The remainder of these men completed the course in this department on July 31, 1905, were given certificates of proficiency by the school board, and were reported by the commandant to the War Department for appointment as electrician sergeants under the provisions of General Orders, No. 115, War Department, 1904.

For special report by the instructor of the electrician sergeants' department on the work of this department during the school year see Appendix D.<sup>a</sup>

#### MASTER ELECTRICIANS.

On September 11, 1904, the following-named enlisted men, having completed their practical examination for appointment as master electricians, were recommended to the War Department for promotion to that grade and were subsequently appointed: Electrician Sergt. Sog F. Williams, Electrician Sergt. Byron J. Brown, Electrician Sergt. William E. Mapes.

Under the provisions of General Orders, No. 63, Adjutant-General's Office, 1903, a theoretical examination of applicants for appointment as master electricians was held at various places throughout the country on March 1, 1905, a notice of the examination having been previously published in electrical journals and other periodicals.

Fifteen enlisted men and four civilians reported for the examination.

The theoretical examination was passed successfully by Electrician Sergt. Max Felgentreff, Electrician Sergt. John F. Leary, Electrician Sergt. Henry Kunzman, Electrician Sergt. Dudley C. Stansbury, and

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<sup>a</sup> Omitted.

Electrician Sergt. Frederick P. Schlandt, who, upon recommendation of the torpedo board, the practical examination having been waived by the War Department, were appointed to the grade of master electrician and assigned to various districts for duty.

On August 23, 1904, a board of artillery officers, composed of three members of the last class at the school, was ordered by the department commander to convene at Fort Totten, N. Y., on September 1, for the purpose of examining all men of the torpedo depot company reported qualified for examination. As a result of this examination, published in Special Orders, No. 231, Headquarters Department of the East, 1904, 57 men were found qualified as first-class gunners and 6 as second-class gunners.

On December 7, 1904, in accordance with General Orders, No. 108, War Department, 1904, 32 enlisted men of this company, specially qualified in submarine-mine work, were transferred to other companies of Coast Artillery (torpedo companies), per Special Orders, No. 287, War Department, 1904, and on December 28, 1904, 37 men were transferred to the torpedo-depot company from other companies of Coast Artillery. For special report by the commanding officer of this company on the submarine-mine work of the company see Appendix G.<sup>a</sup>

#### PROGRAMMES OF INSTRUCTION.

The programmes of the different departments for the school year of 1904-5, as arranged by the school board and approved by the Chief of Staff August 2, 1904, were followed throughout the year and are given in detail herewith.

#### DEPARTMENT OF ELECTRICITY, MINES, AND MECHANISM.

[Capt. Richmond P. Davis, Artillery Corps, Instructor.]

Instruction will be given daily (Sundays excepted, and Saturdays ordinarily so) from December 12 to July 31, inclusive, in the subjects enumerated below. At least eight hours' work per day will be required.

*Theoretical course.*—(1) Fundamental laws of electricity and magnetism and their application in electrical engineering; (2) submarine warfare.

*Practical course.*—(1) Electrical and magnetic measurements; (2) oil engines; (3) steam engines and boilers; (4) direct-current apparatus; (5) alternating-current apparatus; (6) testing new devices; (7) planting and operating mines. An examination of a practical nature will be held at the end of the course.

#### DEPARTMENT OF CHEMISTRY AND EXPLOSIVES.

[Capt. Wirt Robinson, Artillery Corps, Instructor.]

Instruction will be given daily (Sundays excepted, and Saturdays ordinarily so) from September 1 to December 11, inclusive, in the subjects enumerated below. At least eight hours' work per day will be required.

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<sup>a</sup> Omitted.

*Theoretical course.*—(1) Elementary chemical principles; (2) principles of qualitative and quantitative analysis, especially as applied to explosives; (3) theory, classification, manufacture, properties, tests, and employment of explosives.

*Practical course.*—(1) Chemical manipulations, preparation and use of apparatus; (2) analyses and service tests of explosives; (3) employment of fuses and uses of high explosives; (4) tests of relative strength of explosives. An examination of a practical nature will be held at the end of the course.

## ELECTRICIAN SERGEANTS' DEPARTMENT.

[Capt. C. F. Parker, Artillery Corps, instructor; \* Second Lieut. Lee Hagood, Artillery Corps, assistant instructor; Master Electrician C. M. Beer, U. S. Army, assistant instructor, in charge of machine shop; Master Electrician M. H. Hagenah, U. S. Army, assistant instructor, in charge of power plant.]

Instruction will be given daily (Sundays excepted, and Saturdays ordinarily so) from September 1 to August 1, inclusive, in the subjects enumerated below. At least eight hours' work per day will be required.

*Theoretical course.*—(1) Arithmetic, elementary algebra, and mensuration; (2) electricity and magnetism; (3) elementary physics; (4) oil engines; (5) steam boilers and engines; (6) submarine mines, telephones, and telautographs; (7) Army Regulations.

*Practical course.*—(1) Machine-shop practice—(a) bench work; (b) lathes, planers, milling machines, etc.; (c) repairs to boilers, engines, dynamos, motors, etc. (2) Care and operation of (a) oil engines, (b) steam boilers, (c) engines, (d) dynamos, (e) motors, (f) searchlight, etc.

## SCHEDULE FOR THE TORPEDO COMPANY.

[Capt. Richmond P. Davis, Artillery Corps, commanding.]

The schedule followed in the instruction of this company in submarine-mine work during the closed season is given in Appendix H.<sup>b</sup> Two hours and a half daily, four days out of every five, Saturdays and Sundays excepted, were devoted to this work, the extra and special duty men receiving at least one hour instruction daily. In addition the entire company, including extra and special duty men, weather permitting, received fifteen minutes' infantry drill four days out of every five, Saturdays and Sundays excepted.

During the open season the entire company, except extra and special duty men, was given fifteen minutes' infantry drill and three and a half hours submarine-mine work four days in every five, Saturdays and Sundays excepted. The extra and special duty men during this period received one hour instruction in submarine-mine work daily, and fifteen minutes' infantry drill, Saturdays and Sundays excepted.

The period from April 1 to December 31 is the open season.

\* Relieved July 13, 1905.

<sup>b</sup> Omitted.

## WORK OF THE SCHOOL.

This has been continued along the same general lines as last year and has been as satisfactory as could have been expected, considering the equipment of the school. Regarding this equipment, the officers' division of the school is fairly well equipped with necessary modern apparatus for this work; the enlisted men's division has, however, been badly handicapped for want of a proper and adequate electrical power plant for instruction purposes. With respect to this power plant, the following recommendation was made in my report two years ago, and repeated in that for last year:

That special effort also be made to secure an appropriation of \$70,000 for a model power plant at this school like and at least equal in capacity to any of the plants being erected by the Engineer Department elsewhere, for use both for instruction and war purposes. In this connection it will be remembered that the Artillery is being called upon to provide the necessary skilled men to care for and operate the large and expensive plants already erected and being erected by the Engineers at various Coast Artillery posts, which plants have heretofore been cared for by civilian experts employed by the Engineer Department; and, further, that upon the commandant of this school largely devolves the responsibility for the proper training of artillerymen for these important duties. This training, which should without question be almost wholly practical, can not be properly given without a suitable and adequate plant for instruction purposes. On this subject the president of the Army War College Board stated in an indorsement dated Washington, May 14, 1903: " \* \* \* To construct at Fort Totten a model plant like and at least equal in capacity to the plants being erected by the Engineers at other posts of the same size as this would appear to be an eminently proper application of any \$70,000 of school funds that can be allotted for this purpose. \* \* \* The desirability of having such a \$70,000 plant for instruction purposes is not questioned \* \* \*." An item for \$70,000 for such a plant was therefore inserted in the estimates for the school for the next year, and recommendation is accordingly made that an appropriation be secured, if possible, to cover this item.

The necessity for such a model power plant for instruction purposes has become more and more evident each year since the school was established, and until such a plant has been installed here the best practical training of the men in the electrician sergeants' department can not possibly be given.

The present equipment of the school has been made from the special allotment of \$39,149.10 made by the Secretary of War the year the school was established, from the annual appropriations for the several departments, and from the appropriation for incidental expenses of the school. The funds of the special allotment have now been exhausted, and the appropriation for incidental expenses was, on recommendation of the War Department, last year reduced from \$10,000, as heretofore made, to \$5,500. With this reduced appropriation for incidental expenses it will be practically impossible to help out any of the departments this year in the matter of their equipment, as has heretofore been done. With regard to this matter it has been found impossible to foresee exactly the needs of each department to keep it up to date, and hence to make an estimate that would exactly cover the needs of each department. When the special appropriation for any department had been exhausted, it has been repeatedly found necessary since the school was established to purchase special apparatus from the appropriation for incidental expenses in "unforeseen expenses" of the school.

When it was learned last year that the estimate for "Incidental expenses" had been reduced in the War Department from \$10,000



to \$5,500, a letter was written to the Chief of Artillery explaining in detail the necessity for the full amount estimated for and asking that a supplemental estimate be submitted to Congress increasing the item from \$5,500 to \$10,000. This requested increase could not be attained and the result is that only \$5,500 are available for incidental expenses during the fiscal year 1905 and 1906 and the work of the school will be hampered accordingly. Already there have been calls from the electrician sergeants' department for improvements which can not be met owing to this reduction in the appropriation for incidental expenses. The estimate submitted for such expenses for the next year will be, as heretofore, for \$10,000, and it is most earnestly and urgently asked that for the good of the school this estimate be not reduced by the War Department.

With regard to the matter of appropriations for this, as well as for other service schools, it is deemed proper to state that it is considered to be of the highest importance to the Army at large that these appropriations should be such as to enable the schools to be kept in the highest possible state of efficiency; for with our comparatively small Regular Army there can be no question but that every possible effort should be made to keep it at all times in a high state of efficiency, and upon the work of these schools, or the character of the instruction given thereat, this efficiency of the Army largely depends.

The amount and character of the work done in each of the departments of the school are shown in the reports of the different instructors in Appendixes B, C, and D.<sup>a</sup> As these reports indicate, every effort is made to make this a practical rather than a theoretical school, the theoretical course being limited as nearly as possible to what is necessary to enable the practical work to be carried on properly, or under service conditions.

As stated in my report of last year, the repair work done in the electrical sergeants' department is not only of great benefit in the practical training of the class and a great saving in expense to the Government, but it is also a great saving in time, as it is very difficult to get any commercial company to complete in a reasonable time minor electrical repairs requiring skilled labor.

For the Army and Navy exercises the student officers, the torpedo depot company, and the electrician sergeants' class were divided into detachments and distributed among the three artillery districts (Chesapeake, Baltimore, and Washington), the student officers and the officers and men of the torpedo depot company to assist in mine work, the men of the electrician sergeants' class to assist in operating the power plants and searchlights of the different districts. The general plans for the mine work in the districts were, by direction of the War Department, prepared by the Torpedo Board, and on request of the division commander I was appointed division inspector of mines, with Capt. C. F. Parker, Artillery Corps, instructor of the electrician sergeants' department, and Capt. R. P. Davis, Artillery Corps, instructor department of electricity, mines, and mechanism, as assistants.

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<sup>a</sup> Omitted.

The officers and men of the school reported for duty in the different districts on June 1, and were on this duty for about three weeks. The work of all was in a high degree satisfactory.

During the exercises a number of approved modifications in the mine system were given a most thorough test, all of which worked most satisfactorily and showed a great advance over the old system. For these modifications and improvements in the system Capt. R. P. Davis, Artillery Corps, instructor, and Mr. Caryl D. Haskins, who together devised them, deserve the greatest possible credit.

In connection with the work of the school it is thought that mention should be made of the fact that on request of the Superintendent of the United States Military Academy the first class of the Corps of Cadets, 115 members, was last year ordered to Fort Totten by the War Department for the period from August 21 to August 25 for instruction in heavy-gun work and submarine mining, and that this year this action has been repeated, the first class, consisting of 80 members, having been ordered to Fort Totten from August 13 to 17.

This action on the part of the Superintendent of the Military Academy in having the first class of the Corps of Cadets sent here for a few days' instruction in heavy-gun and mine work is considered most admirable, for, though the cadets can only get an elementary knowledge of such work in the few days they are here, this elementary knowledge will, it is believed, broaden the views of every member of the class regarding coast artillery and be of benefit to each one throughout the remainder of his army life whatever the branch of the service in which he may serve.

#### SCHOOL BUILDINGS AND IMPROVEMENT OF THE POST.

The work in connection with the approved scheme for the improvement of the post and school (see Appendix K),<sup>a</sup> has progressed satisfactorily during the year. Since my last report the following buildings have been completed and turned over:

*Quartermaster's Department.*—One administration building; 1 double set married officers' quarters; 1 building containing 8 sets bachelor quarters; 2 double sets noncommissioned officers' quarters; kitchen and dining room addition to 3 barracks.

*Engineer Department.*—One torpedo storehouse; 1 loading room.

Funds have been allotted for and work has begun on the following buildings:

*Quartermaster's Department.*—Two single sets field officers' quarters; 8 double sets married officers' quarters; 3 double sets noncommissioned officers' quarters; 1 gymnasium; consolidated mess building, converting same into post exchange building; 1 hospital; 1 hospital sergeant's quarters.

*Engineer Department.*—One torpedo depot repair shop; 1 torpedo depot storehouse; 1 cable tank.

In addition to the above the sea walls on the north and east sides of the reservation have been practically completed, the two quartermaster's wharves have been thoroughly repaired, and funds have been allotted for nearly all new roads and walks needed, for grading around new buildings, and for filling in a considerable portion of the marshy, mosquito-breeding land on the west of the reservation.

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<sup>a</sup> Omitted.

Only one building, an electric power plant, of the approved scheme relating to the Engineer Department remains to be allotted for and built. A list of the buildings yet to be erected by the Quartermaster's Department with explanatory notes relating thereto is given in Appendix J.<sup>a</sup> A comparison of this list with the original scheme for improvement as approved by the Secretary of War on February 17, 1903, will show that the original scheme is now about four-fifths completed. The necessity for the prompt completion of the scheme is set forth in Appendix J.<sup>a</sup> and it is urgently recommended that, if it can not otherwise be done, a special appropriation for this purpose be obtained, if possible, at the next session of Congress.

#### BOATS FOR MINE WORK.

The four new torpedo planters, the *General Henry J. Hunt*, the *General Henry Knox*, the *Colonel George Armistead*, and the *Major Samuel Ringgold*, designed and built by the Quartermaster's Department expressly for practical instruction in mine planting were completed and turned over to the artillery for this work about the close of the last school year.

These planters are seagoing lighters, modeled after one of the latest types of Lighthouse Service tenders, arranged, equipped, and manned especially for mine work. The general scheme for work of the four planters contemplates that one should be stationed at Fort Totten for work at the school, and that each of the other three should go from harbor to harbor along the Atlantic and Gulf coasts—working at the north in summer and south in winter—and give from a month to six weeks' instruction in actual mine planting at each of the posts along the coasts supplied with a mine equipment.

The personnel of each of the boats at present consists of an artillery officer in command, a civilian crew of 16 men supplied by the Quartermaster's Department, and 12 coast artillerymen specially trained in mine work. This number of trained artillerymen has been found, after a year's practical experience, to be insufficient and it is contemplated that the number will soon be increased to 16. It is hoped, too, that as soon as the number of artillery officers available for such duty will admit of it, a second artillery officer may be detailed for duty with each of the planters which go from harbor to harbor for work.

With regard to the civilian crew considerable difficulty was experienced for nearly a year in running the boats, owing to a shortage in the engineer and in the steward's department, and also to the fact that, as these boats were the first of their kind, the nature of their services and their requirements were not fully understood by the Quartermaster's Department, but, thanks to the action of the Quartermaster-General himself, these deficiencies have finally been remedied, and it is believed and hoped that no further trouble in these respects will be encountered.

Of the work of the four planters, the *General Henry J. Hunt*, Second Lieut. Alfred A. Maybach, Artillery Corps, commanding, has been stationed at the school for a year, except for the month of June, when she was at Fort Monroe for mine work in connection with the

<sup>a</sup> Omitted.

army and navy exercises; the other three planters, the *Colonel George Armistead*, Capt. Lloyd England, Artillery Corps, commanding, the *Major Samuel Ringgold*, Capt. George T. Patterson, Artillery Corps, commanding, and the *General Henry Knox*, Capt. F. G. Mauldin, Artillery Corps, commanding, began their year's work at posts beginning at Fort Monroe, continuing until the artillery district of New Orleans was reached, and then returning to Fort Monroe, Baltimore, and Washington, respectively, to take part in the "exercises." After the conclusion of the exercises, the *General Huht* returned to the school for station; the other planters proceeded to New York for repairs, and when these have been made they will take up their instruction work at posts along the New England coast.

The year's work has shown that the planters are admirably adapted to the work for which they were designed. Some slight modifications in the planting apparatus and interior arrangements have been found necessary, but these have been few and comparatively inexpensive. When these modifications and alterations have been made, and it is hoped that they may be made soon, the planters will be entirely satisfactory for their work.

• Regarding the work of the personnel of the planters, this has been exceedingly satisfactory in every respect. The officers in command of the visiting planters have shown a zeal, patience, energy, and resourcefulness in overcoming difficulties at posts where practically everything was lacking for prompt and efficient mine planting, and for the good work they accomplished under trying circumstances they are specially deserving of great credit.

The services of the planters have been specially valuable in developing the actual condition of the mine equipment and any difficulties of operation at the various posts; for by no other known means could this condition have been so forcibly brought to the attention of the proper authorities to insure its remedy, or the placing of this equipment everywhere in practical and efficient working condition.

On the Pacific coast excellent experimental work was done with boats temporarily hired for the purpose, by Capt. W. C. Davis, Artillery Corps, artillery engineer, and Capt. D. W. Ketcham, Artillery Corps, commanding the torpedo company at the entrance to San Francisco Harbor. The results obtained in the experiments of these officers show clearly the urgent need of a torpedo planter for instruction purposes on that coast. In its report of July 15, 1904, on the buildings, material, etc., necessary to complete the mine equipment of the entire country, the Torpedo Board included an estimate for a torpedo planter for the Pacific coast; and reports of all officers, including the division commander, on submarine-mine work on that coast call attention to the pressing need of such a boat. It is therefore earnestly recommended that the necessary steps be taken by the War Department to procure, if possible, an appropriation for such a boat at the next session of Congress.

#### TORPEDO INSTRUCTION AT OTHER POSTS.

Since the last report of the school was published, General Orders, No. 93, War Department, 1905, placing submarine-mine instruction on the same footing as other coast-artillery work and instruction, and giving full details in regard to submarine-mine work required both in artillery districts where no torpedo company is stationed, and also posts where a torpedo company is serving, have been issued.

These orders also prescribe what preparations shall be made for the annual visit of a torpedo planter and for carrying on of submarine-mine work during the stay of the planter. As the torpedo planters have begun their regular work on the Atlantic and Gulf coasts, and as every post in the country provided with a mine equipment has been specially supplied with necessary material for instruction purposes, there can be no question but that there has been a decided advance in the matter of submarine-mine instruction during the past year.

With the \$400,000 appropriated at the last session of Congress for mine buildings, much will be done toward putting the mine buildings at posts along the Atlantic coast provided with a mine equipment in working order; but even these can not be entirely completed, while the necessary buildings at the posts along the Gulf and Pacific coasts can not even be begun for lack of funds.

Besides the need of mine buildings nearly everywhere and of a torpedo planter on the Pacific coast, the deficiency in the allotted strength of coast artillery companies renders it exceedingly difficult to carry out the provisions of General Orders, No. 93, relating to submarine-mine work at posts where no torpedo company is stationed.

Until the necessary mine buildings, planting wharves, boats, and men are provided for efficient mine service, it can not well be expected that submarine-mine work and instruction will be carried out as it should be.

#### WORK OF THE TORPEDO DEPOT AND OF THE TORPEDO BOARD IN CONTINUING TORPEDO EXPERIMENTS.

The torpedo depot during the past year has continued the supply of mine material to all the different posts having submarine-mine equipment. Endeavor has been made to keep the material of the old system in good working order until such time as additional parts of the new system can be purchased and installed.

The work of the torpedo planters in the various posts visited during the past year has brought out by practical demonstrations of mine planting and operation the necessity of keeping equipment in good condition, the importance of a proper supply of material, and, to a great extent, the relative importance of many articles which in theoretical instruction would not receive the attention that their use in practice demands. All this has aided greatly in the preparation of requisitions and therefore in the efficiency of the mine equipment at the posts visited.

The maneuver district during the recent joint exercises was supplied with the new equipment, and it is expected to push this work of replacement of material to the limit of the available appropriations as rapidly as possible.

The experimental work carried on by the Torpedo Board has necessitated the purchase of many new appliances, among them being:

1. The operating panels, motor generators, transformers, tide attachments to mine cases, distribution boxes, multiple-cable mooring and raising wire ropes, automatic anchors, jointing devices, and cable cutters.

2. A chamber for testing explosives under water, with pilings, housing, motor, and appliances, also various explosives and fuzes undergoing tests.

3. Automobile truck and generating set for mobile power plant to be used in connection with either searchlight or mine work; boat telephone sets and many small parts incidental to experimental work in the laboratories and shops.

The hauling of supplies has been hampered on account of the location and inadequacy of the present storehouse, but an allotment has been made to build a suitable storehouse near the dock. This will very much facilitate the receiving and shipping of stores.

A statement of receipts and disbursements of depot funds is shown in Appendix E.\*

#### COMPLETION OF THE MINE EQUIPMENT OF THE UNITED STATES.

In its proceedings of April 2, 1903, the Torpedo Board stated:

The submarine-mine equipment as now provided is by no means complete, and unless prompt and proper measures are taken to remedy these deficiencies this particular and important element of defense will be found wanting, if it does not absolutely fail, in the event of a sudden and unexpected outbreak of war.

With regard to this matter of the completion of the entire approved scheme of submarine-mine defense of the country and the probable cost thereof, the board would further state most positively and emphatically that, so far as it is able to see, there is absolutely no reason, except the lack of the necessary funds for the work, why this important element of coast defense should not be completed at once, and also, so far as it is able to estimate, the probable cost of the completion of the entire approved scheme will not exceed, and possibly not equal, one-half the cost of one modern battle ship. If this estimate of the board is even approximately correct, the necessity for the prompt completion of the entire scheme of submarine-mine defense and the advantage to be thereby gained will at once be seen; for the moment that this is done it will enable the whole of our much more costly Navy to practically cut loose from our coast and carry war wherever strategic reasons may require, with perfect confidence that every harbor provided with a mine defense is practically secure against any sudden attack an enemy could bring against it.

In the annual report on the school for 1902-3 it was recommended that the attention of the General Staff, whose duty under the law is "to prepare plans for the national defense," be specially invited to the above extract from the proceedings of the Torpedo Board, and to the necessity for completing without delay the submarine-mine equipment of the most important harbors of the country.

On June 1, 1904, the Torpedo Board was requested by the third division of the General Staff to prepare a tabulated statement showing for each harbor to be defended by submarine mines the buildings and material needed for the completion of the mine defense and the cost of the same, and the number of officers, men, and boats needed to plant and operate the mines; also the number of power plants and searchlights needed for the entire country, and the personnel required to operate them.

The tabulated statement and accompanying memorandum prepared by the Torpedo Board and forwarded July 15, 1904, in accordance with the above request of the General Staff are given in Appendix I.\*

An examination of Sheet A of this statement, which gives a detailed estimate of the buildings, material, and boats required to complete the mine defense of the United States, shows the total estimated cost for this completion to be \$3,819,420, or about one-half the cost of a completed battle ship, as estimated by the Torpedo Board in its proceedings of April 2, 1903, above quoted.

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\* Omitted.

Sheet B gives a detailed statement of material needed to complete the mine equipment of the different harbors to be mined and the cost of the same; Sheet C, a detailed estimate of the personnel required for mine service and to operate the power plants and searchlights of all posts in the United States.

This report of the torpedo board, after having been favorably considered by the third division of the General Staff, was referred, as shown by a published report of the Chief of Staff, to a special committee of five General Staff officers. This committee strongly approved the report of the Torpedo Board, simply adding to the recommendations regarding personnel as shown by Sheet C<sup>a</sup> 5 officers and 175 enlisted men for service at Manila.

The report of the Torpedo Board was also approved by the Chief of Artillery, who further stated in his annual report for 1904—

Recent events have particularly emphasized the value of torpedoes, which form the first line of defense of a fortified harbor. The most valuable lesson thus far learned from the Russo-Japanese war is their paramount importance for harbor protection.

To secure at the present time the greatest measure of national safety at the least cost, the entire torpedo defense of our harbors should at once be made complete. The cost of the completion of this defense is estimated at \$3,819,420, or a little more than half of the cost of a fully equipped battle ship. It would be criminal neglect if I did not urge, as earnestly as I can, the immediate completion of the torpedo defense of all of our fortified ports. To-day this defense is lamentably deficient both in material and personnel.

We can not afford to wait for war to prepare our torpedo defense, but must be prepared for the anticipation of war. In the event of war only those mines, cables, and many other appliances can be used which are already on hand; none can be acquired in time for effective use against early attack.

In a published memorandum report to the Secretary of War upon the recommendations and conclusions of the special committee of five General Staff officers above referred to, the Chief of Staff stated:

The ideal service which the special committee proposes for the personnel it is necessary to add to the coast-defense service as set out in Appendix C,<sup>a</sup> amounting to 169 officers and 4,970 men for the United States, 5 officers and 175 men for mine service at Manila (Appendix F<sup>a</sup>), making a total of 174 officers and 5,145 men. There is real necessity for adding this number of troops to the present strength of the Coast Artillery (13,792), and it is urgently recommended that Congress be asked to take measures in due order to that end.

(Recommendations that Congress, in the interest of economy to the Government, be asked to first provide necessary quarters for increase in personnel follow.)

In his annual message to the last Congress, the President stated—

Great progress has been made in protecting our coasts by adequate fortifications with sufficient guns. We should, however, pay much more heed than at present to the development of an extensive system of floating mines for use in all our more important harbors. These mines have been proved to be a most formidable safeguard against hostile fleets.

In a letter to the Secretary of War, dated March 13, 1905, the President further stated:

The proper organization and training of the Artillery arm are so important to secure our national defense that I desire the Chief of Artillery may submit to the General Staff recommendations of the following subjects:

- \* \* \* \* \*
- (8) What is the cost of completing the entire torpedo defense of the United

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<sup>a</sup> Omitted.

States, including the accessories of such defense, and what personnel does it require to man it?

\* \* \* \* \*

I wish, if possible, the report of the General Staff, including a draft for the legislation recommended, to be in the hands of the Secretary of War for his consideration by September 1, 1905.

If the policy recommended for artillery garrisons requires an increase of shelter, the Quartermaster-General should include the necessary estimates for the coming year so that supplementary estimates may be avoided.

To query 8 of the President's letter, as quoted, Gen. J. P. Story, late Chief of Artillery, replied:

The completion of the entire torpedo defense of the United States will cost \$3,819,420, about one-half as much as a battle ship complete, and in no other way can the same amount of money be spent to such advantage for the national defense.

The personnel regarded as necessary is as follows:

*Torpedo defense.*—Officers, 117; enlisted men of companies, 3,740.

*Power plants, searchlights, etc.*—Officers, 52; master electricians, 26; electrician sergeants, first-class, 74; electrical sergeants, second-class, 74; enlisted men of companies, 1,056.

The figures as above given by General Story are identical with those given in the tabulated report of the Torpedo Board and shown in detail in Sheets A, B, C, of Appendix K.<sup>a</sup> Of the \$3,819,420 estimated in Sheet A as necessary for mine buildings, material, and boats, \$700,000 was last year appropriated; \$400,000 for mine buildings, \$300,000 for mine material. With the funds thus appropriated the mine equipment of a number of the principal harbors on the Atlantic coast will be approximately completed, but none will be absolutely so, while several on this coast and all on the Gulf and on the Pacific coasts will be practically in the same condition as they were on February 20, 1903, when the Torpedo Board stated:

It is considered by the Board that in this connection it can not be too strongly stated, nor too often repeated, that there is not at the present time a single artillery post, among all the thirty or more presumably supplied with a submarine mine equipment, that is complete or even approximately complete in its equipment of material and proper buildings for caring for the material and operating the system as contemplated in and measured by the standard laid down in the Torpedo Manual.

From the foregoing it will be seen that while much has been done within the past year toward the completion of the entire scheme of submarine defense of the country, much yet remains to be done in regard to both material and personnel before this defense is in practical working shape for war.

In this connection, it is to be presumed that, in accordance with the President's letter of March 13, 1905, the draft for legislation therein referred to will be submitted by the General Staff, and that the Quartermaster-General will make the necessary estimates for increase of shelter required. With regard to the material required for the completion of the United States mine defenses, as shown in detail in Sheet A, Appendix K,<sup>a</sup> it is urgently recommended that the head of each of the supply departments interested therein—Engineer, Ordnance, Signal, and Quartermaster—be directed to submit estimates for the coming year covering so much of this material pertaining to his department as was not covered by the appropriation of \$700,000 for last year.

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<sup>a</sup> Omitted.



## MOVABLE TORPEDOES.

During the past year the question of the use of movable torpedoes as adjuncts to the submarine defense, for use in waters too deep and swift or channels too wide to be successfully mined, has been under consideration by the Board for the revision of the report of the Endicott Board, and the Torpedo Board has been several times communicated with in regard to this matter.

In connection with the school, the following extract from my report of last year gives the views of the Torpedo Board on the subject of the establishment of an experimental plant at the school for purposes of instruction and for practice with movable torpedoes, and also an estimate as submitted by the Board for such a plant:

In the opinion of the Torpedo Board the time has now arrived when the establishment of a plant at the school for purposes of instruction and practice with these torpedoes should be begun, and it therefore, in accordance with the indorsement of the Chief of Artillery on the report of the Board of Engineers, submits the accompanying estimate for such a plant.

*Estimate for instruction plant for automobile torpedoes at Fort Totten, N. Y.*

Two 3 m. 45 cm. Whitehead torpedoes, 1,200 yards at 35 knots, at \$5,000.	\$10, 000
Two 21-inch Whitehead torpedoes, 4,000 yards at 26 knots, at \$7,500	15, 000
Two above-water launching tubes, with pedestals, etc., at \$2,000	4, 000
One air-compressor set, motor driven, including bank of cylinders, separators, etc	7, 500
One brick building, about 25 by 122 feet, containing air-compressor room 25 by 12; one storeroom, 25 by 20; one assembling and disassembling room, 25 by 28; one instructing room, 25 by 32; one plotting room and observing platform, 25 by 28 (similar to tracing of plan and elevation submitted with paper of Board of Engineers)	15, 000
Contingencies and accessories	3, 500
Total	55, 000

No action, so far as known, has been taken by the War Department on the estimate of the Torpedo Board submitted. In view of the importance of this matter, it is therefore recommended that the Board of Ordnance and Fortification be requested to make an allotment for the establishment of the experimental plant above referred to if funds therefor are available; if not, that an estimate for such a plant be submitted by the proper authority to Congress at its next session.

## SUBMARINE BOATS.

As in case of movable torpedoes, the question of the use of submarine boats as adjuncts to the fixed mine defense of the country has been under consideration by the board for the revision of the report of the Endicott Board during the past year, and the Torpedo Board has been called on for remark on this subject.

In this connection attention is invited to the following extract from my report of last year, to which experiment and practice with the submarine boat in this country and abroad has but added force:

It is now again desired to invite special attention to the unquestionable value of submarine boats as an adjunct to fixed mine and movable torpedoes for the defense of the particular places named in the report of the second committee, and also to the need of a boat of the Lake type, or similar type, at the School of Submarine Defense for experimental work, as this is the only submarine boat, so far as known, that can be efficiently used in countermining electrically controlled mines. The advisability of procuring submarine boats for the defense of the places named it is believed will also be seen to be unquestionable when it is considered that the cost of such a boat is about one-fortieth of that of a modern battle ship; that without such boats as an adjunct to the mine and gun defenses

of those places a more expensive boat of the Navy will undoubtedly be called for as a home guard for those waters in case of war, and that with submarine boats as an adjunct to the Army's defenses it will be possible so to defend those waters as to enable the more expensive and seagoing boats proper of the Navy to cut loose from those harbors with impunity and go wherever naval strategy may demand.

#### RECOMMENDATIONS.

The following is a résumé of the recommendation made in the body of this report, as well as of others made in the appendices, to which the attention of the War Department is specially invited. It is urgently requested that every effort be made to obtain the allotments, appropriations, and legislation necessary to carry these recommendations into effect.

First. To secure an appropriation of \$70,000 for a model power plant for the school.

Second. To secure through the board for the revision of the report of the Endicott Board an appropriation of \$55,000 for the installation of a movable torpedo plant at the school for instruction purposes.

Third. That an allotment be made from the appropriation for the "erection of barracks and quarters for the artillery in connection with the adopted project for seacoast defenses," act of March 3, 1905, in addition to the barrack for the depot torpedo company, as recommended in Appendix J; for a barrack for the electrician sergeant's class at the school and for the barrack recommended in the report of the board on improvements for the post and school (Appendix K).<sup>a</sup>

Fourth. That an allotment be made from the appropriation referred to in item 3 for the completion of the quarters, as recommended in the approved scheme for the post and school (see Appendix K).<sup>a</sup>

Fifth. That special efforts be made to secure mounted pay for the adjutant of the school, the heads of the three departments (electricity, mines, and mechanism; chemistry and explosives, and electrician sergeants) and for the disbursing officer of the torpedo depot.

Sixth. That the head of each supply department procure the necessary appropriation at the next session of Congress for the buildings, boats, and mine material necessary to complete the scheme for the submarine mine defense of the United States, as set forth in detail in Appendix I.<sup>a</sup>

Seventh. To secure the passage of a bill at the next session of Congress for an increase in the personnel of the coast artillery for submarine mine, power plant, and searchlight, as recommended in Sheet C of Appendix I,<sup>a</sup> and Sheet F<sup>a</sup> referred to in memorandum of Chief of Staff to the Secretary of War on this subject.

Eighth. To secure the passage of a bill at the next session of Congress providing for the erection of the necessary barracks and quarters, as recommended by the Chief of Staff in his memorandum to the Secretary of War and as contemplated by the President in his letter for the proposed increase in the Coast Artillery.

Very respectfully,

ARTHUR MURRAY,

*Lieutenant-Colonel, Artillery Corps, Commandant.*

THE MILITARY SECRETARY,

*War Department, Washington, D. C.*

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<sup>a</sup> Omitted.

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**REPORT OF THE ARMY MEDICAL SCHOOL.**

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## REPORT OF THE ARMY MEDICAL SCHOOL.

UNITED STATES ARMY MEDICAL SCHOOL,  
*Washington, D. C., June 16, 1905.*

SIR: I have the honor to report the condition of the Army Medical School, including an account of the instruction given and the proficiency of the students as shown by examination during and at the termination of the courses.

The ninth session began October 1, 1904, and ended April 11, 1905.

The following table shows the subjects taught, the name of each instructor, the number of hours devoted to each subject, and the maximum and minimum rating of each subject after examination:

	No. of hours.	Subject.	Name of instructor.	Valuation.	
				Maxi-mum.	Mini-mum.
1	100	Duties of medical officers, medical department administration, and customs of the service.	Maj. W. H. Arthur and Lieut. H. L. Gilchrist.	1,000	800
2	20	Military hygiene.....	Maj. W. D. McCaw .....	800	640
3	207	Clinical microscopy and bacteriology.	Lieut. J. Carroll .....	800	640
4	20	Military surgery.....	Maj. W. C. Borden .....	800	640
5	20	Tropical medicine.....	Maj. W. D. McCaw .....	600	480
6	129	Sanitary chemistry.....	Capt. C. R. Darnall.....	600	480
7	75	Hospital-corps drill .....	Lieut. H. L. Gilchrist .....	500	400
8	36	Operative surgery .....	Capt. C. R. Darnall.....	400	320
9	44	Ophthalmology and optometry .....	Maj. J. D. Glennan.....	400	320
10	12	Military medicine.....	Col. C. L. Helzmann .....	300	240
11	30	X-ray work.....	Maj. W. C. Borden .....	300	240

In addition, 35 hours were given to equitation at Fort Myer, Va. It was contemplated to devote 50 hours, but under date of November 10, 1904, the commanding officer of that station recommended that, because of fatigue, the time set aside for each lesson, 2 hours, be shortened. This was approved by the president of the school November 11, 1904. The instructor designated by the Chief of Staff was Second Lieut. James A. Shannon, Seventh Cavalry.

Twenty-one surgical clinics were given at the general hospital, Washington Barracks, by Major Borden, of the faculty.

Gen. George B. Davis, Judge-Advocate-General, U. S. Army, delivered four lectures on Military Law in March, 1905, and Maj. Chauncey B. Baker, Quartermaster's Department, four lectures on Army Transportation during the same month. Dr. Robert Fletcher lectured once in April on the Library of the Surgeon-General's Office, and Miss Clara Ludlow devoted 3 hours to the subject of Mosquitoes as part of the bacteriological laboratory course.

The schedule is deemed amply sufficient for students who had been commissioned and have had some service at military posts. A larger and fuller course in administrative duties, however, is advisable for student candidates and officers of the militia. This will be provided in the next session, the duration of which will be that contemplated by the circular of information, Surgeon-General's Office, June 21, 1904, viz, eight months instead of six. There will be an opportunity then also to enlarge the scopes of some other subjects—bacteriology, pathology, and hygiene—so that they may be completed during the session of the school and their repetition in the final examination for commission be avoided. Likewise, a more extensive course in physics and chemistry, from elementary to analytical, ending by a school examination, would seem to justify the omission of that subject from the preliminary examination to enter the school.

It is not clear why examinations in the practice of medicine and practice of surgery are comprised in the final examination. Considering the branches of those subjects taught fully in the school by practical laboratory work and lectures, and that the degree of Doctor of Medicine had been granted by civil schools, and that one year actual practice is required before a candidate enters the Army School, it appears to be superfluous to have these subjects for another examination, after the preliminary and school examinations. It is therefore recommended that the "principles of medicine" and the "principles of surgery" be included in the preliminary examination and dropped from the final, and that the school examination in pathology, bacteriology, and hygiene be final.

Whatever system is adopted the clinical medical and surgical examinations at the end should never be omitted.

Should these suggestions be approved for trial and it will have been found that efficiency has not been impaired, I am sure that in time all subjects necessary will be included in that of the school. These examinations covering thirty-two subjects as now constituted are appalling to a young man who desires to enter the Medical Department of the Army after years of successive examinations in civil life to be properly prepared in general and medical education, with the numerous specialties added in recent years to obtain degrees, and by one year's hospital or practical experience. As the faculty of the school is now the board for all examinations it seems to me that it could just as easily determine a man's fitness by two instead of three sets of questions. Such a system would be analagous to that of the Military Academy. The present one is like that of the Naval Academy, the necessity for which is due to reasons that do not apply to land forces.

Regarding the students, the school is now in a transition state. Originally and from its establishment all were officers who had no particular incentive to study. Failure in one or all of the branches taught carried no penalty. During this session the body of students comprised 10 such officers, 3 student candidates, and 8 militia officers.

Those of the first kind showed at the earlier stages only a perfunctory desire to be benefited, either to graduate with honor (an average of 90 per cent) or to graduate at all (an average of 80 per cent). Later there was improvement and yet the result was that only two attained the honor, and of the remainder, though all were declared proficient, several secured positions in the class not in accord with their positions in the Army.

The three student candidates having everything to gain, captured the highest places in spite of the fact that they had much more additional work in order to meet the requirements of the final examination for commission, thereby proving the wisdom of the radical change from the old system of securing medical officers. Having watched their conduct, habits, attention to duty, and appreciated their eminent success, I have no doubt that hereafter the Medical Department will get by the new system a superior class of officers.

At this session, too, was inaugurated the training of medical officers of the militia of the States in everything pertaining to military medicine as distinct from naval, municipal, State, and civil medicine, etc., in order that, under the Dick law, they might become qualified in the emergency of war to perform all the duties of military surgeons of the National Army. If my interpretation of the purpose is correct, I regret to report that the result was not satisfactory. All these officers were studious and earnest, and all would have contributed to the sanitary and disciplinary education of the organizations to which they belong had they returned to them. The majority, however, developed an intention to use the school as a means of employment in the regular establishment, thus to deprive their States of their services. One succeeded in receiving a commission in the Army and two secured contracts. This result is interesting in demonstrating the need of some regulation by which the purpose of the law would be fulfilled in greater part, and at the same time secure for the regular and volunteer forces the best material possible.

This last point will be attained by requiring all militia medical officers, who have served one year as such and who have been recommended by the governors of their respective States, to pass an entrance examination similar to those exacted of line officers by the Artillery School and the Infantry and Cavalry School.

The school having acquired additional rooms can now accommodate a maximum of 50 students.

The merit roll required by paragraph 11, Manual for the Medical Department, showing the relative proficiency of the students in each branch, is hereby forwarded.

Very respectfully,

C. L. HEIZMANN,

*Colonel, Assistant Surgeon-General, U. S. Army, President.*

The SURGEON-GENERAL U. S. ARMY.





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**REPORT OF THE CHICKAMAUGA AND CHATTANOOGA  
NATIONAL MILITARY PARK COMMISSION.**

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## REPORT OF THE CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK COMMISSION.

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WAR DEPARTMENT,  
CHICKAMAUGA AND CHATTANOOGA  
NATIONAL PARK COMMISSION,  
*Washington, September 30, 1905.*

SIR: The Commissioners of the Chickamauga and Chattanooga National Military Park respectfully submit the following report of the progress of the work under their charge for the fiscal year ended June 30, 1905:

### POINT PARK.

By act of Congress approved July 1, 1898, the sum of \$35,000 was appropriated to enable the Secretary of War to complete the battlefield of Lookout Mountain by the purchase of the Point Park at the north point of Lookout Mountain, and under this authority the park of about 16 acres was acquired. No expenditure was made for improvement of this tract until during the fiscal year ended June 30, 1905, when a monumental entrance to the park was constructed. The completed scheme included a stone fence terminating in a turret on the property line of the eastern bluff of Lookout Mountain, a distance of 268 feet. The main structure, a monumental entrance, is built across the end of East avenue and is 64 feet long. It is composed of two battlemented observation towers 33 feet 8 inches high, connected by a corbeled and crenelated wall, to which is built the buttress portal, and containing an arch entrance 12 feet wide and 10 feet high to be used as a carriage entrance into the park. Among the features embraced in this work, besides the entrance structure, are two gate entrances with their accompanying posts and three stone turrets. In labor and material there has been expended in this work \$10,534.26; in grading and curbing, \$574.46; making a total of \$11,108.66. It is estimated that it will cost \$2,900 to complete this improvement. This can not be accomplished, however, until the New York memorial, now under construction within the limits of Point Park, shall have been completed.

### ROADS AND AVENUES.

No roads have been constructed during the year, but the sum of \$6,285.19, has been expended in betterments and maintenance of the 80 miles of roads now completed, of which \$2,336.29 was for betterments, including the construction of 6,076 linear feet of standard paved gutters on the sides of the roads, with resloping of all banks adjacent to the gutters. For the repair and maintenance of the roads there was expended \$3,948.90, or about \$50 per mile. The use of these roads is increasing every year, owing to the changing conditions at the

park, due to the establishment of Fort Oglethorpe within its boundaries, and the increase of the civil population in the vicinity; and with these changed conditions an increase in cost of maintenance is to be expected, and should be provided for.

In this connection we renew the recommendation of the late chairman of this Commission in his report for 1904:

It is strongly recommended that before the park is turned over to a general park commission, provided Congress decides upon such a step, that sufficient funds be provided for completing the stone guttering of the principal roads. This work is proceeding rapidly under expert gangs, costing \$950 a mile, including the dressing of the slopes and putting the adjacent surface of the roads in first-class condition. This guttering affords a shoulder for the road surface, and whenever completed will greatly reduce the subsequent cost of road maintenance, which will be the chief item in the final maintenance of the park after the Government work of establishment is completed.

#### BRIDGE MAINTENANCE.

All the floors of the bridges in the entire road system have been given attention, and three of them wholly refloored.

#### BUILDINGS.

Many of the dwellings, barns, and other outhouses have fallen into decay. In many cases these have no historical importance. To maintain them would involve needless expense, and thirteen such ruined buildings have been demolished and removed. The sites of those possessing any historical interest will be marked.

#### FIELD WORK.

The expenditure on this account amounts to \$1,235.69, and covers the work of cutting wind and dead falls and brush on portions of the park, mowing the fields in the western half of the park, and around monuments, gun carriages, and tablets, and along the sides of roads.

The work of reforesting fields in the park that have been cleared since the battle of 1863 has progressed; 12,223 trees have been planted during the year at a cost of \$331.55.

#### CONSTRUCTION AND CARE OF MONUMENTS, TABLETS, AND TOWERS.

There have been put in position four batteries of two guns each: Corput's Battery in Point Park, Lookout Mountain, two 12-pounder howitzers; Fourth Indiana Battery, summit of Cameron Hill, two James rifles; two 30-pounder Parrott rifles on the summit of Cameron Hill; two 30-pounder Parrott rifles on Fort Wood.

Twenty historical tablets have been purchased for the following batteries and for general descriptive purposes:

"First Firing on Chickamauga Battlefield." Cloud Springs, Chickamauga Park.

"Corput's Battery." Point Park, Lookout Mountain.

"Battle of Chattanooga." First day. On Cameron Hill.

"Battle of Chattanooga." Second day. On Cameron Hill.

"Battle of Chattanooga." Third day. On Cameron Hill.

"Strahl's Brigade." Montgomery avenue.

"Reopening of Tennessee River." Summit of Cameron Hill.

"Havis's Battery." Crest road, Missionary Ridge.

"Mebane's Battery." Crest road, Missionary Ridge.

- "Rowan's Battery." Crest road, Missionary Ridge.
- "Swett's Battery." Sherman Reservation, Missionary Ridge.
- "Dawson's Battery." Crest road, Missionary Ridge.
- "Cobb's Battery." Crest road, Missionary Ridge.
- "Massenburg's Battery." Crest road, Missionary Ridge.
- "Slocumb's Battery." Ohio Reservation, Crest road.
- "Garrity's Alabama Battery." Crest road, Missionary Ridge.
- "Dent's Battery." Crest road, Missionary Ridge.
- "Howell's Battery." Crest road, Missionary Ridge.
- "Barrett's Battery." Sherman Reservation, Missionary Ridge.
- "Fowler's Battery." Sherman Reservation, Missionary Ridge.

For the care of monuments, gun carriages, towers, and tablets, including cleaning and painting the towers and tablets, there has been expended \$837.44.

The Connecticut memorial at Orchard Knob, erected in 1897, was dedicated on October 16, 1904. Governor Chamberlain of Connecticut, his staff, two companies of State troops, and a large party of distinguished citizens of the State were present. The exercises were participated in by the Third Regiment, Tennessee National Guard.

The work of constructing the New York memorial in Point Park on Lookout Mountain progresses; it will probably be completed within a year.

The Iowa monument at Rossville Gap is still unfinished, but its completion is expected within a year.

Preparations are under way for the erection of a monument to the One hundred and ninth Pennsylvania Regiment of Infantry on Orchard Knob, and for monuments and markers of the Thirty-ninth, Fifty-eighth, and Sixtieth North Carolina regiments on the field of Chickamauga.

The receipts and expenditures for the fiscal year ending June 30, 1905, were as follows, vouchers for each item of expenditure being on file in the office of the disbursing clerk of the War Department:

Receipts:

On hand as per last report, balance of appropriation fiscal year ended June 30, 1904 .....	\$2, 893. 26
Appropriation for fiscal year ended June 30, 1905 .....	40, 000. 00
Total .....	<u>42, 893. 26</u>

Expenditures from July 1, 1904, to June 30, 1905:

Salaries of Commissioners .....	6, 520. 00
Salaries of assistant in Confederate work, clerk, and messenger .....	4, 495. 56
Salaries of engineer and assistants, and park marshal .....	5, 505. 00
Labor .....	18, 846. 57
Mileage .....	259. 98
Miscellaneous:	
Forage .....	\$588. 44
Expressage and freight .....	33. 78
Oaths to contracts, recording deeds .....	72. 25
Photographs and photograph supplies .....	27. 05
Telegrams .....	17. 85
Telephone service .....	65. 00
Park transportation (horseshoeing, repairs to wagon, harness, etc.) .....	94. 95
Rent of chairs, carriages, etc., at dedication of monuments ..	43. 00
Flags and halyards .....	61. 92
Towel service .....	11. 00
Painter's supplies .....	76. 34
	<u>1, 091. 58</u>

## Miscellaneous—Continued.

Stationery and printing.....	\$113. 33
Machinery and tools .....	30. 29
Material for construction.....	1, 568. 38
Water supply .....	33. 00
Painting towers .....	256. 00
Atlas, Chattanooga and vicinity .....	25. 00
Gun carriages.....	672. 50
Total .....	<u>39, 417. 19</u>
Balance.....	<u>3, 476. 07</u>

The death of Gen. H. V. Boynton, June 3 last, was a distinct loss to the public service, and particularly to the park, to the development of which he had given unremitting study and constant work.

Respectfully submitted for the Commission.

E. A. CARMAN,  
*Chairman of Commission.*

The SECRETARY OF WAR.

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**REPORT OF THE GETTYSBURG NATIONAL  
PARK COMMISSION.**

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## REPORT OF THE GETTYSBURG NATIONAL MILITARY PARK COMMISSION.

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WAR DEPARTMENT,  
GETTYSBURG NATIONAL PARK COMMISSION,  
*Gettysburg, Pa., June 30, 1905.*

SIR: The Commissioners of the Gettysburg National Military Park respectfully submit the following report of the progress of their work for the fiscal year ending June 30, 1905, with suggestions for its further prosecution and completion:

### MILITARY AVENUES.

A portion of the Taneytown road has been reconstructed on the Telford system, the same as the avenues in the park, under the provisions of the act of Congress authorizing "the improvement of certain public roads extending from the borough line outward." This avenue, extending from the borough line of Gettysburg southerly a quarter of a mile beyond Meade's headquarters, has been graded and piked. The length of the piking is 2,443 feet, with a width of 16 feet.

North Confederate avenue is being graded and piked under contract. This avenue connects Buford avenue with Doubleday avenue around the slopes of Oak Hill on land purchased by the Commission. It will open up the positions of four Confederate batteries and a section of Whitworth guns. This avenue gives a full view of the first day's conflict; length of piking, 2,365 feet, and width 16 feet.

The contract for piking Colgrove and Carman avenues has been let and the work is more than half completed. This avenue connects with Slocum avenue and opens up the positions of the Twenty-seventh Indiana, Second Massachusetts, Thirteenth New Jersey, and Third Wisconsin regiments. This avenue is 1,794 feet long and 16 feet wide.

A strip of land 20 feet wide has been purchased for the purpose of extending Doubleday avenue to the east end of Wadsworth avenue. The line has been staked and bids invited for the work. This avenue will be 720 feet long and 16 feet wide.

The purchase of Bair's woods, formerly a part of the Rose farm, which was accomplished during the fiscal year, makes it possible to build an avenue on some of the most important grounds of the battlefield. There is now in contemplation the construction of an avenue over this ground. The line commences at the wheat field, running in a southwesterly direction along the front line of the four Pennsylvania Reserve Veteran Corps regiments and the One hundred and forty-eighth Pennsylvania, thence southeasterly along the position of the two brigades of United States Regular Infantry (Day and Burbank), thence in a westerly direction near the Fifth New Hampshire and Twentieth Indiana Infantry regiments, continuing

through lately acquired land and northerly along the front line of Brooke's brigade, thence easterly to and over the low ground of the wheat field, passing the following monuments, viz: One hundred and tenth Pennsylvania, Twenty-seventh Connecticut, Eighth New Jersey, One hundred and fifteenth Pennsylvania, Seventeenth Maine, Sixty-second Pennsylvania, and Fourth Michigan, intersecting Sickles avenue at the wheatfield woods; total distance of about 1 mile. This avenue will pass through the positions of the following Confederate brigades, viz: Wofford, Kershaw, Semmes, and Anderson. A preliminary survey for this proposed avenue has been made and mapped. It opens up a most important part of the field, which is now almost inaccessible. It will pass near to 34 marked Union regimental positions, 4 unmarked Confederate brigades, and 1 unmarked Union brigade.

#### STEEL BRIDGE.

On November 12, 1904, a contract was made to construct and erect on Reynolds avenue, over Western Maryland Railroad, a new steel bridge, to take the place of an old wrought and cast iron bridge, which had become dangerous on account of the heavy travel and the height of the bridge over the railroad. The first bids were rejected and new bids were called for on modified plans and accepted. The bridge was erected at a cost of \$3,800, the lowest bid received. An inspection and test of the bridge was made by the engineer of the Commission on June 17, 1905, by placing 20 tons on center of the bridge and measuring the depression, which was only one-fourth inch in the center and was recovered when the weight was removed.

#### GUN CARRIAGES.

Ten gun carriages have been furnished and erected on the cavalry field to mark the positions of the Confederate cavalry there and an additional carriage on that field to mark the position of Pennington's battery on the avenue near the Hanover road.

Eight gun carriages have been placed to mark the position of Latimer's battalion of Confederate artillery on Benner's Hill, also one carriage to mark the position of Hall's Maine battery on the Chambersburg pike.

The remaining gun carriages, provided by contract already made, will be mounted along the line of North Confederate avenue when said avenue, now under construction, shall be completed.

Two additional carriages of a heavier pattern will be placed to mark the position of two Whitworth guns on Oak Ridge, North Confederate avenue.

#### TABLETS ERECTED.

One avenue tablet on east end of Meredith avenue.

Two avenue tablets, Taneytown road.

Four battery tablets on east cavalry field (Confederate).

Four brigade tablets, east cavalry field (Confederate).

Four battery tablets on Benner's Hill (Confederate).

One battalion tablet on West Confederate avenue (Confederate).

Additional tablets have been ordered for Carman and Colgrove and for North Confederate avenue, probably 20 in all. A

or 502 tablets of all kinds on the field.

## AVENUE FENCING.

About 4,000 feet of avenue fencing has been erected, viz, 1,800 feet on Buford avenue, 1,670 feet on Stone avenue, 110 feet on Emmitsburg road, 400 feet on Sedgwick avenue; 4 avenue gates have been erected in the avenue fencing.

## POST AND RAIL FENCING.

One thousand five hundred panels of post and rail fencing have been delivered under contract during the year.

## LAND ACQUIRED.

The following tracts have been added to the United States land here during the fiscal year:

By condemnation:	Acres.
Four tracts belonging to Springs and Hotel company-----	36.56
Cunningham tract, east of Round Top-----	9.53
McAllister heirs' tract-----	6.59
Two tracts of Springs and Hotel company (Codori)-----	98.94
Two tracts of J. Emory Blair (Rose farm)-----	31.22
One tract of H. L. Diehl-----	11.498
Total-----	194.338

## LAND NECESSARY TO BE ACQUIRED.

	Acres.
Ten tracts necessary to construct Cavalry avenue-----	35.710
Powers Hill and adjoining timber land containing-----	70.006

This last tract can be purchased for \$1,800.

## STONE WALLS.

The stone wall to replace the original and left incomplete in December, 1904, along Wright avenue has been completed this spring, and the wall along the Emanuel Weikert line has been completed also and gates put in.

	Feet.
The addition completed is-----	760
On the Taneytown road, from Pleasonton avenue north-----	350
Along Althoff land and Wheatfield road-----	1,600
North boundary line of Hummelbaugh-----	700
Total-----	3,410

## PAVED GUTTERS.

	Feet.
On Howard avenue-----	110
On Buford avenue-----	1,691
On United States avenue-----	2,340
On Sykes avenue-----	189
On East Confederate avenue-----	980
On Sickles avenue-----	1,160
Total-----	6,470

## SHELLS AT AVENUE CURVES.

Two shell stones at Meredith avenue.  
One shell stone at Stone avenue.

## TREES PLANTED.

Four thousand one hundred trees were planted in the autumn of 1904 in the open spaces in what were known as Pitzer's woods, Biesecker's woods, and Masonheimer's field. The trees previously planted had made a fair growth, but during the last winter mice and rabbits killed a few small trees by gnawing the bark. The unusually severe winter and deep snow probably induced these rodents to attack the young trees.

## GATES.

Eighteen gates were made and erected in post fence line by our carpenters, viz, 5 on cavalry field, 3 on Wright avenue, 2 on Taneytown road, 2 on Benner's hill, 2 at Rose Grove, 2 in Wills's line, and 2 on Chambersburg pike.

## MONUMENTS.

The following monuments have been erected during the year:

To the Independent Company Oneida (New York) Cavalry, on the north side of Meade avenue, near Meade's headquarters.

The marker of the Twenty-eighth Pennsylvania Infantry, on the west bank of Rock Creek, in the S. Bushman wood, now belonging to the United States, marks the position of that regiment on July 2, 1863.

A monument, consisting of a large granite boulder, with a bronze tablet bearing an appropriate inscription, has been placed on the east side of the Taneytown road, opposite Wright avenue, to mark the headquarters of Brig. Gen. Albion P. Howe, commanding the Second Division, Sixth Corps.

These monuments have not as yet been dedicated.

With the approval of the honorable Secretary of War, an additional base has been placed under the monument of the Nineteenth Indiana Infantry to elevate it above the low ground where it stood and to bring it into view from Meredith avenue.

## MONUMENTS AND MARKERS TO REGULAR COMMANDS.

Congress having, by act passed February 18, 1903, and a supplementary act approved March 12, 1905, directed the Commission, subject to the supervision of the Secretary of War, to erect monuments and markers to the 42 organizations of the Regular Army engaged here during the battle, and having made an appropriation of \$63,000 therefor, the Secretary of War has, so far as practicable, in accordance with said acts, procured the appointment of committees of the survivors of these organizations for the purpose of having the Commissioners consult with them and, with the approval of the Secretary of War, determine the designs and positions of said monuments and markers and the inscriptions to be placed thereon.

The meeting of such committee with the Commissioners will be held at Gettysburg October 17-18, 1905, for the examination and selection of designs.

It is also the intention of the Commission to erect tablets to mark the headquarters of the army corps, divisions, and brigades with a suitable inscription.

All this work is expected to be far advanced during the next fiscal year.

#### VISITORS TO THE FIELD.

A large number of persons have visited the field. The fine avenues seem to be a special inducement to large and numerous automobile parties, who persistently disregard the rules and regulations governing the park, as approved by the Secretary of War, and under the present rules it appears to be impossible to secure their arrest and conviction.

Among the distinguished visitors to the field was Sir Thomas Fraser, of the British Army, who was a guest of the War Department.

The graduating class of West Point cadets visited the field on May 4, 1905, and remained two days. The class numbered 104. Every portion of the field was visited and studied by them.

#### RELIEF MAP.

On February 2, 1905, the relief map of the field was returned from the Louisiana Purchase Exposition, and has been repaired and set up in this office. The balance of our exhibit was forwarded direct from St. Louis to the Lewis and Clark Exposition at Portland, Oreg.

#### INSPECTION.

Col. E. A. Garlington, Inspector-General, U. S. Army, arrived at Gettysburg on December 2, 1904, and made a thorough inspection of the field, including all United States property in charge of the Commission, the office system, and all matters and things connected with the maintenance and development of the park.

A copy of this inspection report is attached to this report of the Commission.

A few small tracts of land, amounting to about 36 acres, are needed to connect avenues, especially the main field with the cavalry field, east of the town. A wooded tract of 70 acres, known as "Powers Hill," is also needed to preserve the topographical features of the field and to mark the headquarters of General Slocum during the battle and the positions of two batteries and a regiment of infantry.

Beautiful and appropriate monuments have been erected on the cavalry field which are now inaccessible, except by a long detour over bad country roads, consequently this portion of the field is seldom visited.

The battlefield will continue to be the "mecca" of the old soldiers. It is expected that other monuments will be erected. It is suggested that markers of little cost be placed to mark the farthest and most important advances of the Confederate forces (brigades) in the attack on the Union positions during the three days' engagement. The tablets now erected on the Confederate avenues give the condensed itinerary of brigades only and show where they started from. The markers suggested will show the point reached and give a history of the field of attack. A suitable and inexpensive block of stone, with appropriate inscription, will answer the purposes of the historian.

The advance positions of the Union regiments are now marked by monuments and markers which have been erected by the various States.

The Commissioners can not close their report without referring to the efficient services of Col. E. B. Cope, engineer, and his assistant, S. Augustine Hammond. Their work has been most satisfactory. The guards and laborers have also worked faithfully in the interest of the Government.

We submit herewith a summary of the work and list of blueprints made from surveys and drawings by the engineers of the Commission; also a list of photographs<sup>a</sup> of views on the infantry and artillery field; also on the cavalry field to the east. These show the new work done during the fiscal year.

We request Congress to give a liberal sum for the continuation of the work as outlined in this report.

Very respectfully,

JOHN P. NICHOLSON,  
*Chairman.*

CHARLES A. RICHARDSON,  
L. L. LOMAX,  
*Commissioners.*

The SECRETARY OF WAR.

*Summary.*

Land on Gettysburg battlefield belonging to United States.....	acres..	1,599.94
Avenues (total length, 20.37 miles).....		32
Steel towers (height, 75 feet).....		3
Steel towers (height, 60 feet).....		2
Steel bridge (span, 60 feet).....		1
Stone bridges (length, 40 feet).....		2
Stone and steel bridges (length, 40 feet).....		4
Stone bridges (length, 20 feet).....		3
Gun carriages on Union line mounted with—		
Napoleon guns.....		75
20-pound Parrotts.....		6
10-pound Parrotts.....		30
3-inch rifles.....		78
12-pound howitzer.....		1
James guns.....		2
Total .....		192
Gun carriages on Confederate lines mounted with—		
Confederate Napoleons .....		54
20-pound Parrotts.....		6
10-pound Parrotts.....		22
3-inch rifles.....		32
24-pound howitzers.....		2
12-pound howitzers.....		19
Whitworth guns.....		2
6-pound bronze guns .....		1
Total .....		138
Total mounted gun carriages.....		330

<sup>a</sup> Omitted.

# GETTYSBURG NATIONAL PARK.

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Avenue fencing.....	miles.....	13.90
Post fencing.....	do.....	14.11
Stone walls rebuilt.....	do.....	5.50
Paved gutters.....	do.....	14.00
Iron tablets on field.....		501
Bronze tablet on field.....		1
Shells mounted on granite blocks.....		314
Trees planted to reforest field.....		13,200
Avenue gates, iron and wood.....		40
Wooden gates for post fencing.....		18
Iron gates in avenue fencing.....		12

## OTHER UNITED STATES PROPERTY.

One storage building, 50 by 30 by 20 feet high, fire proof, containing 1 steam roller; 1 stone roller; 1 water tank, containing 16 gallons; 1 coal bin, 25-ton capacity, containing 12 tons of coal; 1 cart, box of seeds, 3 mowing machines, 7 lawn mowers, 1 water cart, 1 land roller, 1 harrow, hardware, tools, oil, and other supplies for the workmen, an inventory of which is on file in this office.

There are also stored at Meade's headquarters: Seven bridge planks, 12 by 3 inches by 22 feet long; 350 old locust posts, old lumber, old rope, corner stones, old iron, etc.

The artisans and laborers employed by the Commission have been employed at various duties, such as repairing the buildings and fences on United States land, renewing the painting upon fencing, gun carriages, tables, etc., rebuilding stone walls, paving gutters, mowing the sides of all avenues, clearing and repairing all places necessary about the National Park.

## INSPECTION REPORT, GETTYSBURG NATIONAL PARK.

HEADQUARTERS ATLANTIC DIVISION,  
INSPECTOR-GENERAL'S OFFICE,  
*Governors Island, N. Y., December 9, 1904.*

SIR: I have the honor to submit the following report of an inspection of the details of the work as carried on by the Gettysburg National Park Commission, in compliance with letter of instructions from The Military Secretary's Office, dated November 7, 1904.

### *Personnel of the Gettysburg National Park Commission.*

Col. JOHN P. NICHOLSON, *Chairman.*  
Maj. WILLIAM M. ROBBINS.  
Maj. CHARLES A. RICHARDSON.

### *Employees.*

Col. E. B. COPE, chief engineer and superintendent, at \$150 per month.  
One assistant engineer, at \$80 per month.  
One rodman, at \$50 per month.  
One assistant superintendent, at \$50 per month.  
One storekeeper and timekeeper, at \$50 per month.  
One messenger, at \$35 per month.  
One hostler, at \$30 per month.  
Five guards, each at \$40 per month.  
Total monthly pay roll, \$645.

On the date of inspection, in addition to the above, there were employed 27 laborers, at \$1.50 per day; 3 carts, with horse and driver, at \$2.25 per day, and 2 teams, with driver, at \$3.25 per day. The pay roll for this class of labor during the month of November, 1904, was \$1,367.92.

### MEANS OF TRANSPORTATION AND IMPLEMENTS.

Three horses, two wagons, one cart, one steam roller, one horse roller, two bar mowers, one horse lawn mower, and one water cart.

### BUILDINGS.

One brick fireproof storehouse.

### OFFICE.

The office of the Commission is located in the town of Gettysburg, for which a rental of \$210 per year, including the water rent, is paid. The average cost of fuel is \$24 per year; the average cost of lights, \$30 per year.



The animals belonging to the Commission occupy a stable in the town, for which a rental of \$30 per year is paid.

#### BOOKS AND RECORDS.

##### Belonging to the Commission:

1. Journal: Extends from June 1, 1893, to date, and includes 12 volumes of over 5,000 pages, recording each day's transactions and meetings of the Commission.
2. Contracts: Full details of the work, 1893 to 1904, bound separately in 52 volumes.
3. A volume embracing legislative history of the battlefield from the organization of the Gettysburg Battlefield Memorial Association, including all legislation by States and the National Government.
4. Applications by the Commission for authority for work and purchases, with the approval of the War Department, embracing 12 quarto volumes arranged by year.
5. Volume containing the number of letters written daily, relating to the work since 1893.
6. Volume containing copy of every Confederate and Union inscription prepared and placed on the field by the Commission since 1893.
7. Two volumes, folio, containing a record of every plat or piece of ground transferred to the United States, as recorded, with full-page drawing of the property.
8. Four volumes, quarto, showing the property purchased, accompanied by the agreement of the owner to sell, authority from the Secretary of War to purchase, with blueprint description of the land.
9. Three folio volumes, containing applications from State commissions and associations of survivors to locate monuments and tablets, since 1893, with the correspondence relating to the location, designs, and inscriptions, with final approval of the Secretary of War.

##### Engineer Department:

1. Journal: 7 volumes, July, 1893, to December, 1904.
2. Office memoranda: 2 volumes, July, 1893, to December, 1904.
3. Contract book: 1 volume, July, 1893, to December, 1904.
4. Cannon account: 1 volume, July, 1893, to December, 1904.
5. General information: 1 volume, July, 1893, to December, 1904.
6. Agreement of employees: 1 volume, July, 1893, to December, 1904.
7. Account book, employees: 1 volume, July, 1895, to December, 1904.
8. Account book, materials, etc.: 4 volumes, July, 1896, to December, 1904.
9. Record of position of troops: 1 volume, July 1, 2, and 3, 1863.
10. Applicants for position on force: 1 volume.
11. Drawings and tracings: 1 volume, from 1893 to 1904.
12. Blueprints: 1 volume, 1893 to 1904.
13. Books, 30 by 36 inches: 2 volumes, containing 372 pages, with 542 blueprints.
14. Book, 30 by 36 inches: 1 volume, office copy Warren map, 24 sheets.
15. Book, 30 by 36 inches: 1 volume, engineers' survey of Gettysburg battlefield.
16. Book, 21 by 30 inches: 1 volume, engineers' survey, colored maps and prints.
17. Book, 1 volume, Warren map, position of troops each half hour, July 1.
18. Book, 1 volume, Warren map, position of troops each half hour, July 2.
19. Book, 1 volume, Warren map, position of troops each half hour, July 3.
20. Time book, kept by timekeeper.
21. List of tools, kept by timekeeper.

In addition to the above, the office contains books and photographs of every monument on the field; views of all the different work on the field; photographs of important buildings and historic places on the field about the time of the battle, and folio books containing copies of every blueprint.

The above records are very full and complete. I do not see that the

intelligent system followed could be improved upon. Nearly all records are of great historic value and some means should be provided at an early date to guard them against destruction by fire.

#### BUSINESS METHODS.

The Commission does not disburse funds. The money appropriated for the work done by the Commission is disbursed by the disbursing officer of the War Department, under the orders of the Secretary of War. The amount to the credit of the appropriation on October 31, 1904, was \$46,905.63. Except in case of very minor transactions, all purchases are made after competitive bids are requested and the contract awarded. All bills are verified and signed by the chief engineer and approved by the chairman of the Commission. All the work on property included in the park is done by contract after competition, except maintenance and general repairs to roads, fences, etc., and the construction of gutters.

The supervision of labor, record of work done, and time employed is excellent.

#### GUARDS AND LABORERS.

The guards, five in number, have the authority of deputy marshals and are employed in the general police of the park to prevent injuries to the public work or the mutilation of the monuments, and are required to submit each evening a report covering their observations and work done during the day, indicating what monuments or roads require repair or attention, also the number of articles, if any, which they have found on the field. The number of laborers is reduced to the lowest minimum from about the 26th of December every year until about the middle of the following March.

#### WORK DONE.

Since July, 1893, there have been constructed 20 miles of Telford avenues; 13½ miles of avenue fencing, built of locust posts and gas-pipe rails; 12½ miles of fencing built of posts and rails; 13 miles of gutter paving. Five and one-quarter miles of stone walls have been rebuilt at locations where stone walls existed at the time of the battle. Three hundred and twenty-four guns have been mounted; 462 tablets have been erected, and 17,100 trees have been planted. These trees are planted on ground that was covered with trees at the time of the battle. All this work has been well done.

The roads have been constructed on the Telford system; the road-bed, carefully graded and drained, was covered with a course of stone, paved by hand, consisting of hard stone 8 to 10 inches long, 7 to 8 inches wide, and 4 to 6 inches thick, and bowlders about the same size, set up on edge, thickest edge down, length across the road, and laid so as to break joints as much as possible, forming a rough, irregular pavement, 8 inches thick, over the whole roadbed, the joints between the stones being chinked and knapped with smaller stones and stone chips driven in, projecting points above 8 inches being knocked off with a hammer.

A course of stones 12 inches high, 12 to 18 inches long, 6 to 8 inches

thick is laid at the sides of the subgrade. This foundation is covered to a depth of 5 inches in the center and 4 inches at the sides with broken stone  $1\frac{1}{2}$  inches dimension. This is rolled by a 13-ton roller at least five times after being sprinkled. One-half inch of clay is then spread over this layer, which is then covered with 2 inches of granite screenings, three-fourths-inch size, which is sprinkled and rolled five times; finally, over this a half inch of fine limestone screenings is evenly spread over the entire surface, sprinkled, and rolled at least ten times.

Some of these roads have been in use for ten years and show very little signs of wear; in fact, they are as good as when first completed. The average cost of these roads has been about  $73\frac{1}{2}$  cents per square yard—something over \$8,000 a mile. With proper care and maintenance they will last indefinitely. The guttering along these roads now being constructed under the supervision of the chief engineer by day labor, is an improvement over that first put down by the contract system. It is of excellent quality and should endure for a long time.

#### FARMING LAND.

Within the limits of the park are 12 small farms. These farms are rented on a yearly lease to approved tenants under uniform leases, which carefully guard the interests of the park by including provisions which require the improvement of the land. There is also a small frame building leased to an old soldier within the limits of the park. The revenue derived from these leases amounts to \$799 per annum. This money is, with the approval of the Secretary of War, disbursed for the betterment of the park.

#### EXTENT OF PARK.

The Government now owns 1,380 acres of land on the battlefield. Thirty-six acres are now under condemnation proceedings before the courts. In the opinion of the Commission, there still remain about 190 acres of land that should be acquired in order to preserve the integrity of the entire battlefield. This land is indicated on the accompanying map, as described in the legend. In order to connect the field where the cavalry action took place during this memorable battle, it is very desirable to acquire a strip of land 50 feet wide. The road has been surveyed. The proposed avenue is entirely practicable and can be acquired for about \$2,700. Under the present arrangement, it is necessary for anyone desiring to visit the cavalry field to travel about 4 miles over bad roads, and for this reason it is rarely visited by the numerous throngs of people who go to the infantry field. By the proposed route a distance of about  $2\frac{1}{2}$  miles would be saved. It is earnestly recommended that this project be approved. The land to be acquired is mainly on that portion of the field occupied by the Confederate army on which were stationed during the battle bodies of troops or batteries of artillery.

#### CONCLUSION.

I thoroughly inspected the roads, avenues, and the park generally, both on the infantry field and on the cavalry field. The roads, fences,

monuments, woodlands, and shrubbery are in good condition, and the entire park, as observed, was well policed and free from rubbish and other disfiguring elements. The character of the work done and the general conditions showed a very intelligent and thorough system as to construction, care, and maintenance. I have nothing to suggest in the way of improvements upon the methods and systems of the Commission. It appears to me that they have accomplished a great work, one of the principal features being the extreme care taken to ascertain the positions held by the various commands participating in the great battle fought there. There can be no doubt that the positions thus far marked are accurate and trustworthy.

An accurate topographical map of the entire field has been completed under the direction of Colonel Cope, the chief engineer.

A list of blank forms<sup>a</sup> used by the Commission, map of the field<sup>a</sup>, map showing the land owned and such land as it is proposed to acquire, regulations for the government of Gettysburg Park<sup>a</sup>, and specifications for roads, fences, and gun carriages accompany this report.

Very respectfully,

E. A. GARLINGTON,  
*Colonel, Inspector-General.*

The ASSISTANT SECRETARY OF WAR,  
*Washington, D. C.*

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<sup>a</sup> Omitted.

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**REPORT OF THE SHILOH NATIONAL MILITARY  
PARK COMMISSION.**

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## REPORT OF THE SHILOH MILITARY PARK COMMISSION.

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WAR DEPARTMENT,  
SHILOH NATIONAL MILITARY PARK COMMISSION,  
*Pittsburg Landing, Tenn., September 1, 1905.*

SIR: The Shiloh National Military Park Commission has the honor to submit its report for the year ending August 31, 1905.

### ROADS AND BRIDGES.

At the date of the last annual report 23.3 miles of road had been completed. Since then three-fourths of a mile has been completed, making a total of 24.05 miles.

A road is now being built from the plateau at Pittsburg Landing, by the mouth of Bill Branch, where a dam and bridge have been built, to the prehistoric mounds on the south side of the branch, connecting the landing with the fighting ground upon the left of the Union lines. This will be completed within a few months.

The work of placing gutters along roads where they were needed has been prosecuted during the year; 5,540 feet of well-laid guttering have been put in place. Bermuda grass has been planted at every point where gutters have been laid, preventing further washing.

The roads are now in excellent condition.

### CLEARING LAND.

Since the last report every part of the park area has had the sprouts cut out, so that the grounds are in good condition.

### MONUMENTS, TABLETS, AND MARKERS.

The Fourteenth Missouri (afterwards the Sixty-sixth Illinois) monument was erected since the last report, and during the same period two other monuments have also been erected upon the field, viz, the Second (Bate's) Tennessee and the Wisconsin State monument.

The Second Tennessee is the only Confederate monument upon the field and a very artistic piece of work. This monument was dedicated upon the 22d of August last with appropriate ceremonies.

The Wisconsin monument cost \$13,500 and was erected to the three regiments of that State participating in the battle. It is very handsome and will be dedicated the coming spring.

All gun carriages that were not painted at the date of the last report have been repainted, so that the entire number, 250 in all, is now in excellent condition.

During the year past we have placed in position the following tablets, viz, 6 explanatory tablets, 3 first-day tablets, 2 second-day tablets, 1 burial trench tablet, 1 marker.

The gas-pipe posts holding tablets and markers have been leaded at the top, so as to prevent water corroding the inside.

#### AGRICULTURAL EXPERIMENT.

An experiment based upon the inoculation theory of the Department of Agriculture, using their formula as received by us, was tried upon 2 acres of land and leguminous seeds were planted. This experiment was an entire failure, perhaps due to the extremely wet weather.

#### TREES.

Some of the trees heretofore set out having died, they have been replaced by others, and all trees and seedlings are now growing well. These trees have been planted on the outside of the fields cleared since the war, serving to define the timber existing at that time.

#### EXPOSITION EXHIBITS.

The tablets and gun carriage exhibited at the Louisiana Purchase Exposition were returned to the park at the close of the fair. The photographs and maps shown there were sent to the Lewis and Clark Exposition at Portland, Oreg. A commemorative diploma has been awarded to the Commission for its exhibit at the Louisiana Purchase Exposition.

During the year various drawings and blueprints therefrom have been made by our engineer.

#### EXPENDITURES.

The expenditures since the last report are as follows:

Salaries .....	\$12,000.00
Office expenses .....	1,405.60
Topography and maps .....	2,483.90
Engineering superintendence .....	2,822.50
Buildings and quarters .....	1,983.38
Clearing land .....	2,035.77
Roads and bridges .....	9,339.21
Monuments and markers .....	179.69
Tablets and guideposts .....	681.89
Cannon and gun carriages .....	275.13
Watchmen and guards .....	960.00
Foundations for State monuments .....	400.00
Total .....	34,567.07

Very respectfully, your obedient servant,

CORNELIUS CADLE,  
*Chairman.*

The ASSISTANT SECRETARY OF WAR,  
*Washington, D. C.*



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**REPORT OF THE VICKSBURG NATIONAL  
MILITARY PARK COMMISSION.**

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## REPORT OF THE VICKSBURG NATIONAL MILITARY PARK COMMISSION.

WAR DEPARTMENT,  
VICKSBURG NATIONAL MILITARY PARK COMMISSION,  
*Vicksburg, Miss., July 10, 1905.*

SIR: The Vicksburg National Military Park Commission has the honor to submit its report for the year ending June 30, 1905.

### PARK AREA.

The small tract of land (1.29 acres) referred to in the last annual report has been conveyed to the United States by Mrs. Jennie Henry for a consideration of \$204. Another small tract (2.59 acres) has been conveyed to the United States, without cost, as the approved site of the Pennsylvania State memorial. Jurisdiction over these two tracts and over the tract (16.63 acres) conveyed by Sarah J. Mosby et al. has been ceded to the United States by proclamation of the governor of Mississippi dated June 30, 1905. The tract in the vicinity of Fort Hill (17.9 acres) has been conveyed to the United States by the McGee heirs (W. H. McGee et al.); the deed and title papers in the case have been approved by the Attorney-General and are held in this office, by direction of the Secretary of War, pending a specific appropriation by Congress for the purchase of land, when the conveyance will be completed.

### CLEARING LAND.

This work has been carried on in the manner described in the last two annual reports, with excellent results for the money expended. Further experience confirms the Commission's opinion as to the advisability and economy of encouraging the grazing of stock in the park, so long as monuments and markers are not thereby injured.

### ROADWAYS.

The Commission's recommendation to extend Confederate avenue by including therein the part of the old Yazoo City road (now known as road No. 81) from the point on said road where said avenue begins to the north end of the bridge over Glass Bayou, provided the governor of Mississippi cedes jurisdiction to the United States over said part of said road, was approved January 10, 1905. The Commission has delayed making the request for cession of jurisdiction until it can be assured by the board of supervisors of the county and State that said board and the public have an undisputed and indisputable title to a roadway neither more nor less than 30 feet in width

throughout the entire length of the said proposed addition to Confederate avenue.

The board of supervisors has taken steps to secure such title by condemnation proceedings where necessary, and the proposed addition will soon be made, thereby increasing the length of Confederate avenue to 9.19 miles and the aggregate length of park roadways to about 27 miles. The work of grading the secondary park avenues and the public roads in the park has been carried on to the extent permitted by demands of other work with good results. Five thousand three hundred and ninety and two-thirds yards of concrete gutter have been made at an aggregate cost of \$6,289.61, being at the rate of \$1.16 per linear yard. Contractor J. T. Crass has metaled 4.43 miles of park roadway from the time he began the work to June 30, 1905. His contract for that work expires by limitation at the end of the current fiscal year. In the opinion of the Commission the contract should be extended to include and require the metaling of all the park roadways (aggregating about 27 miles) by him in accordance with the terms of the present contract; the contractor, during each successive fiscal year, to do the amount of work permitted by the appropriation and allotment for that year; the several amounts kept back on his monthly accounts for work done not to be due and payable until all the park roadways have been metaled and the extended contract fulfilled. Attention is invited to the cost of road maintenance during the last fiscal year. The annual expenditure under this head will be successively reduced as the park roadways are metaled, and when this work is finished the annual cost of road maintenance will be reduced to an insignificant figure.

#### TABLET INSCRIPTIONS.

The contract, referred to in the last annual report, with Mr. George P. Tilton, of Newburyport, Mass., was declared in default, and a new contract with Mr. William F. Runnells, of the same city, for the same work has been signed and approved. The 151 iron tablets and posts named in the contract will be delivered not later than September of the current calendar year. Another contract with Mr. Runnells for 304 iron tablets and posts has been signed and approved. Delivery must be made within twelve months of date of approval of the contract, June 12, 1905. A contract with the Chattanooga Car and Foundry Company for 58 iron guideboard tablets and posts has been signed and approved, delivery to be made within four months from date of approval, June 24, 1905. Proposals, to be opened September 7, 1905, have been invited for 28 bronze tablets, 27 granite posts, etc., at an aggregate cost not exceeding \$4,200. Permission has been obtained from the proper authorities, respectively, for placing 4 tablet inscriptions on the walls of buildings in the city of Vicksburg, Miss.; 8 in the streets of the same city; 2 in the streets of the town of Speed's Addition to the same city; 1 on the National Cemetery road, and 10 in the Anshe Chesed Cemetery, on the Vicksburg battlefield.

#### CANNON AND GUN CARRIAGES.

One hundred and twenty-five field and siege guns have been delivered to the Commission. The Chattanooga Car and Foundry Com-

pany has delivered 112 iron field-gun carriages under the contract referred to in the Commission's last annual report, and 110 field guns (including 13 30-pounder Parrott rifles) have been mounted in their respective approved positions, the wheels and trail of each carriage resting on and bolted to a triangle of plank designed by the engineer. When the batteries have been restored, with embrasure and parapet as in 1863, the guns thus temporarily placed in them will be permanently mounted on concrete foundations, to which the wheels and trail of each carriage will be securely bolted. The two remaining field guns can not be mounted until after the Illinois State memorial has been finished. The Commission proposes, with the approval of the Department, to mount three of the siege guns (one 10-inch mortar, one 8-inch siege howitzer, and one 9-inch B. L. Dahlgren) that are of unusual sizes on wooden carriages, to be made by its employees under direction of the engineer in accordance with the designs shown on plate 173 of the Atlas to accompany the Official Records of the Union and Confederate Armies. The ten remaining heavy guns will be mounted on iron siege carriages, manufactured under contract, but proposals for their manufacture will not be invited during the current fiscal year.

#### STATE MEMORIALS, MONUMENTS, AND MARKERS.

The 39 Ohio regimental and battery monuments and the 20 Ohio regimental assault markers were formally transferred to the United States by the governor of that State on May 22 of the current calendar year, and were received by the Chairman in the name of the Secretary of War, by his direction. The Iowa regimental and battery monuments (13 in number, representing 32 commands) have been placed in the park. The aggregate cost of the foundations for these monuments was \$253.80. The foundation for the Illinois State memorial has been constructed, at a cost of \$4,200.67. The Illinois Vicksburg Park Commission has signed a contract with the Culver Construction Company, of Springfield, Ill., for all its work in the park. A good beginning has been made by the contractor in the construction of the State memorial, and some of the regimental and battery monuments have been placed in position. Foundations for these monuments (79) and foundations for Illinois markers have been constructed, at an aggregate cost of \$147.20. A contract has been signed with Lagarde Lime and Stone Company for furnishing the quantity of crushed stone (not less than 400 yards) required for the foundations for the Pennsylvania and Iowa memorials. It is expected that both foundations will be constructed during the current fiscal year—the one for the Pennsylvania memorial within the current calendar year.

#### VISITS BY STATE COMMISSIONS AND VETERANS.

The Indiana commission visited the park November 16–18, and selected sites for monuments and markers and a site for a State memorial. A committee of the Illinois commission visited the park December 11–13, and selected sites for regimental markers. The Wisconsin commission visited the park December 13–15, and selected sites for monuments and markers. A committee of the Illinois commission visited the park March 24–25, May 22, at the time of transfer of the

Ohio monuments and markers to the United States, and June 24-26. A large number of veterans have visited the park during the year and valuable information has been obtained from them.

#### APPROPRIATIONS BY STATE LEGISLATURES.

Appropriations for memorials, monuments, and markers in the park have been made by State legislatures as follows: Iowa, \$150,000; Illinois, \$260,000; Massachusetts, \$5,000; Michigan, \$10,000; Minnesota, \$25,000; New Hampshire, \$5,000; New York, \$12,500; Ohio, \$56,000; Pennsylvania, \$15,000; Wisconsin, \$30,000; aggregate, \$568,500.

#### ESTIMATES.

The Commission respectfully submits the following estimate for the fiscal year ending June 30, 1906: For continuing the work of establishing the Vicksburg National Military Park; for the compensation of three civilian commissioners and the secretary and historian; for clerical and other services, labor, iron gun carriages, the mounting of siege guns, monuments, markers and historical tablets, maps, surveys, roads, bridges, restoration of earthworks, purchase of land, purchase and transportation of supplies and materials; these and other necessary expenses, \$100,000.

The receipts and expenditures during the year were as follows:

Balance on hand June 30, 1904	\$96, 196. 16
Appropriation, sundry civil act approved March 3, 1905 (immediately available)	75, 000. 00
<b>Total</b>	<b>171, 196. 16</b>
<b>Expenditures:</b>	
Salaries	\$14, 400. 00
Traveling expenses	427. 86
Office expenses	2, 855. 42
Land and conveyancing	230. 85
Topography and maps	535. 03
Buildings and quarters	767. 88
Clearing land	313. 70
Roads and bridges—	
Construction	\$16, 224. 94
Metaling	23, 038. 57
Maintenance	8, 951. 02
	48, 214. 53
Monuments and markers	6, 841. 30
Tablets and guide posts	45. 52
Cannon and gun carriages	12, 565. 63
<b>Total expenditures</b>	<b>87, 198. 71</b>
Balance on hand June 30, 1905	83, 997. 45

Very respectfully,

WM. T. RIGBY,  
STEPHEN D. LEE,  
JAMES G. EVEREST,  
*Commissioners.*

The SECRETARY OF WAR.

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**REPORT OF THE BOARD OF COMMISSIONERS  
OF THE SOLDIERS' HOME.**

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## REPORT OF THE BOARD OF COMMISSIONERS OF THE SOLDIERS' HOME.

THE SOLDIERS' HOME,  
OFFICE OF THE BOARD OF COMMISSIONERS,  
*Washington, D. C., August 15, 1905.*

SIR: Under the requirements of section 1 of the act of Congress approved March 3, 1883, prescribing regulations for the Soldiers' Home in the District of Columbia, I have the honor to submit this report of the Board of Commissioners of the Soldiers' Home for the year ended June 30, 1905, and to invite attention to the following table showing the changes that have occurred in the number of beneficiaries during that period:

	Regular.	Temporary.	Total.
On the rolls June 30, 1904.....	1,301	31	1,332
Admitted since.....	261	174	435
Readmitted.....	265		265
Total.....	1,827	205	2,032
Withdrawn from the Home.....	368		368
Dropped, dismissed, etc.....	79	82	161
Died.....	83	1	84
Transferred to permanent roll.....		85	85
Total.....	530	168	698
Leaving on the rolls June 30, 1905.....	1,297	37	1,334

This shows an increase of two beneficiaries on the rolls since the last annual report.

The total number (1,334) on the rolls June 30, 1905, is accounted for as follows: Present at the Home, 879, or 20 more than last year; on outdoor relief, 286; in the Government Hospital for the Insane, 38; on furlough, 29; absent sick in the general hospital at Fort Bayard, N. Mex., 86; 8 are absent without leave, 7 are suspended, and 1 sick in Army and Navy Hospital at Hot Springs, Ark.

The daily average number of inmates present during the year was 921. Last year the average was 922, and the preceding year 924.

The total number of deaths was 84; last year it was 121. Of the 84 deaths, 37 died in the Home hospital, 21 on outdoor relief, 8 in the Government Hospital for the Insane, 13 at the general hospital at Fort Bayard, 1 in quarters at the Home, 1 committed suicide, 2 died in Washington, and 1 was accidentally killed at the Home.

The following statement shows the amounts received and expended during the year, and the amount of the permanent fund of the Home deposited in the United States Treasury:

## PERMANENT FUND.

Balance in the United States Treasury June 30, 1904.....	\$3,965,605.89
Settlement by the Treasury Department during the year.....	\$743,792.25
Amount withdrawn for current expenses.....	474,100.00

Increase to permanent fund.....	269,692.25
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Balance in United States Treasury June 30, 1905.....	4,235,298.14
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## ACCOUNT OF THE TREASURER OF THE HOME.

Remaining on hand June 30, 1904.....	\$53,949.65
Received during the year:	
From the permanent fund.....	474,100.00
Interest on the permanent fund.....	121,592.26
Effects of deceased inmates subject to demand of legal heirs.....	1,199.58
Miscellaneous receipts.....	7,106.98

Total receipts.....	657,948.47
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## Disbursements:

Current expenses.....	\$330,478.72
Permanent improvements.....	299,597.79

Total disbursements.....	630,076.51
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Balance on hand June 30, 1905.....	27,871.96
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Some of the principal items of current expenditure were as follows:

Subsistence.....	\$82,622.98
Clothing.....	24,438.23
Extra-duty pay to inmates.....	41,730.94
Outdoor relief.....	24,108.14
Fuel for Home.....	27,801.84
Expenses of inmates at hospital at Fort Bayard.....	25,160.46

Total for these items.....	225,862.59
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There are 121 beneficiaries who served in the war with Mexico, and 373 who served in the civil war.

About one-half of the beneficiaries are Americans, about one-fourth Irish, one-sixth German, and the balance natives of other countries. The ages of the resident inmates range from 23 to 90 years; 447 are from 60 to 90 years of age, and 316 have served from twenty to thirty-four years in the Army.

The attending surgeon reports that 671 patients were treated in the hospital; that the daily average was 115.59, and the average age of patients was 54.02 years; that 3,601 were treated at sick call, and the ratio of deaths to 100 inmates per annum was 4.32.

The dentist's report shows that he treated 239 inmates, and that the total number of treatments given was 880.

In the general hospital at Fort Bayard, N. Mex., for the treatment of consumptives, 261 inmates of the Home have been treated during the past year at an expense to the Home of \$25,160.46.

The treasurer's account of funds belonging to the inmate pensioners shows that he had on hand June 30, 1904, \$50,398.96; that he

received \$132,591.22 during the year, and paid to pensioners and to legal heirs of deceased pensioners \$135,185.57, leaving on hand deposited in the United States Treasury, as required by law, \$47,804.61

The pension money of the inmates is paid quarterly to the treasurer of the Home by the United States pension agent in this city and is held by the treasurer in trust. Under the supervision of the governor of the Home the inmates are paid monthly part of their pension money by the treasurer of the home. Of the 879 inmates present, 774 are receiving pensions ranging from \$6 to \$46 per month.

Plans and specifications have been prepared for the construction of a new mess-hall building to conform in material and style of architecture with the Scott building and to contain sufficient dormitory accommodations to meet present and future needs of the Home; also to provide better accommodations for the comfort and convenience of the inmates. Proposals were twice invited, but the bids received were so unsatisfactory in many respects that after careful investigation they were rejected. The Board then decided that in view of the large expenditure of money involved in the erection of such a building the interests of the Home would be best served by not entering into a general contract for the work, but instead to place a competent engineer and constructing officer in charge to carry on the work by entering into subcontracts and the employment of day labor when deemed necessary. The Board therefore requested that Capt. John S. Sewell, Corps of Engineers, be detailed for the purpose. This request was approved by the Secretary of War, who also approved the action taken by the Board in rejecting the bids received for the construction of a mess-hall building. Captain Sewell was detailed by orders from the War Department of July 1, 1905, and it is expected that during this fiscal year satisfactory progress will be made under the course adopted.

The new addition to the hospital and the new administration building, mentioned in the last annual report as being under construction, have been completed in a satisfactory manner.

Under instructions given, plans and specifications have been prepared and are now being examined for the construction of a central heating, light, and power plant to supply the amount of heat, light, and power necessary for all the buildings at the Home. In connection with this plant it is intended to install a steam laundry, which is greatly needed and will save considerable in the cost of the laundry work, which is now done by contract.

Upon application of the Quartermaster-General, Maj. Chauncey B. Baker, quartermaster, who, in addition to his duties in the Quartermaster-General's office, performed the duties of constructing officer at the Soldiers' Home from January 31, 1903, was relieved July 19, 1904, on account of his entire services being required in the Quartermaster-General's office.

Lieut. Col. John W. Summerhayes, U. S. Army, retired, was appointed constructing officer July 26, 1904, and was relieved at his own request on account of ill health May 20, 1905.

Both of these officers on being relieved were, by resolutions of the Board, highly commended for the efficient and valuable service rendered by them.

The act of Congress approved January 19, 1891, requiring the

treasurer to keep the current funds on deposit in the Treasury of the United States has been complied with, and all supplies for the Home which could be conveniently purchased by contract were so procured.

The library of the Home now contains 9,390 volumes. Eleven daily and 17 weekly papers and 23 monthly magazines are provided. The daily average number of books issued was 80.

The account of the farm and dairy shows that their maintenance has been beneficial to the Home, and that they have produced early and late vegetables and a better quality of milk than can be obtained by contract.

The general sanitary condition of the Home and grounds has been excellent throughout the year; the water supply and drainage are satisfactory, and there has been no prevalent or epidemic disease among the inmates.

The buildings, roads, and grounds at the Home are in excellent condition, and the officers of the Home have shown great personal interest in the welfare and contentment of the inmates, whose food and clothing have received special attention.

No change in the membership of the Board or among the officers of the Home occurred during the year.

Attention is respectfully invited to the report of the governor of the Home, which, with the accompanying papers (reports of the attending surgeon and treasurer of the Home), is required to be published with this report, for distribution to the Army.

Very respectfully,

F. C. AINSWORTH,  
*Major-General, The Military Secretary,  
President Board of Commissioners.*

THE SECRETARY OF WAR.

## REPORT OF THE GOVERNOR OF THE SOLDIERS' HOME.

GOVERNOR'S OFFICE, UNITED STATES SOLDIERS' HOME,  
Washington, D. C., June 30, 1905.

SIR: I have the honor to transmit my annual report for the year ending June 30, 1905, with the reports of the attending surgeon and of the secretary and treasurer of the Home.

### *Schedule of admissions to the Home.*

Permanent beneficiaries June 30, 1904.....	1, 301
Admitted during the year ending June 30, 1905.....	261
Readmitted during the year ending June 30, 1905.....	265
<b>Total .....</b>	<b>1, 827</b>
<b>Dropped:</b>	
By voluntary withdrawal.....	368
For absence without leave.....	12
By dismissal.....	24
By order.....	21
For misconduct.....	1
From outdoor relief.....	17
Erroneously taken up.....	1
Discharged as cured at Fort Bayard.....	1
Discharged from insane asylum.....	2
Died .....	83
	<b>530</b>
Permanent inmates June 30, 1905.....	1, 297
<b>Temporary inmates:</b>	
Present June 30, 1904.....	31
Admitted during the year.....	174
<b>Total temporary inmates.....</b>	<b>205</b>
Transferred to permanent rolls.....	85
Dropped .....	82
Died .....	1
	<b>168</b>
Remaining temporary inmates (including 1 in insane asylum)....	37
<b>Total beneficiaries June 30, 1905.....</b>	<b>1, 334</b>

Of whom 879 are inmates of the Home present, 286 receive outdoor relief, 38 are in the insane asylum, 29 are on furlough, 86 are absent sick at the general hospital, Fort Bayard, N. Mex.; 1 is absent sick at Hot Springs, Ark.; 8 are absent without leave, and 7 are suspended.

Increase in the number of temporary inmates for the year, 6; decrease in the number of regular inmates for the year, 4. The aggregate is 2 more than was shown last report.

Of the 84 deaths reported, 37 occurred in Home hospital, 8 in insane asylum, 21 on outdoor relief, 13 at general hospital, Fort Bayard, N. Mex.; 1 was accidentally killed at the Home, 1 died in his quarters at the Home, 2 died at Washington, D. C., 1 committed suicide in Home grounds.

Daily average number of inmates present during the year ending June 30, 1905, 921. Last report the average was 922, and the preceding 924.

Temporarily admitted for medical treatment.....	86
Denied admission.....	28
Number applying for readmission.....	296
Granted outdoor relief.....	25
Denied outdoor relief.....	26
Inmates present having service in Mexico.....	20
Inmates on outdoor relief having service in Mexico.....	92
Total inmates having service in Mexico, of whom 28 had service in the civil war.....	121
Inmates present having service in the civil war.....	301
Inmates absent having service in the civil war.....	72
Total inmates having service in the civil war.....	373

*List of delinquencies committed during the year ending June 30, 1905.*

Drunkenness.....	116
Absence without leave.....	83
Drunk and disorderly.....	59
Introducing whisky.....	16
Disobedience of orders.....	2
Neglect of duty.....	1
Destroying Home property.....	1
Assaulting other inmates.....	7
Using abusive language.....	3
Disposing of Home clothing.....	3
Total number of offenses.....	291
Number of inmates tried once.....	99
Number of inmates tried twice.....	47
Number of inmates tried three times.....	20
Number of inmates tried four times.....	10
Total number of inmates tried.....	176
Per cent of inmates tried, 11.67.	

*Nativity of inmates present and absent June 30, 1905.*

Born in—	Number.	Born in—	Number.
United States.....	677	Denmark.....	6
Ireland.....	291	France.....	9
Germany.....	205	Russia.....	8
England.....	46	Italy.....	1
Scotland.....	16	Belgium.....	1
Canada.....	22	Spain.....	1
Austria.....	16	East India.....	1
Switzerland.....	14		
Sweden and Norway.....	17		1,394
Holland.....	3		

*Pensions of inmates present.*

Rate per month.	Number.	Rate per month.	Number.
\$6.....	109	\$20.....	5
\$8.....	100	\$22.....	2
\$10.....	66	\$24.....	34
\$12.....	231	\$25.....	2
\$14.....	54	\$27.....	1
\$15.....	1	\$30.....	86
\$16.....	20	\$46.....	2
\$17.....	107		
\$18.....	2	Total.....	774

*Inmates present June 30, 1905.*

Length of service.	Number.	Length of service.	Number.
3 months.....	2	14 years.....	15
4 months.....	1	15 years.....	26
5 months.....	2	16 years.....	19
6 months.....	1	17 years.....	19
7 months.....	4	18 years.....	28
8 months.....	3	19 years.....	82
9 months.....	1	20 years.....	85
10 months.....	2	21 years.....	64
1 year.....	20	22 years.....	50
2 years.....	47	23 years.....	36
3 years.....	77	24 years.....	25
4 years.....	81	25 years.....	17
5 years.....	63	26 years.....	19
6 years.....	11	27 years.....	10
7 years.....	12	28 years.....	7
8 years.....	28	29 years.....	1
9 years.....	20	31 years.....	1
10 years.....	24	34 years.....	1
11 years.....	21		
12 years.....	24	Total.....	879
13 years.....	23		

*Ages of inmates present, June 30, 1905.*

Age.	Number.	Age.	Number.
23 years.....	1	57 years.....	39
25 years.....	2	58 years.....	43
26 years.....	2	59 years.....	34
27 years.....	1	60 years.....	32
29 years.....	4	61 years.....	40
30 years.....	3	62 years.....	26
31 years.....	2	63 years.....	27
32 years.....	6	64 years.....	23
33 years.....	4	65 years.....	39
34 years.....	2	66 years.....	18
35 years.....	5	67 years.....	22
36 years.....	5	68 years.....	33
37 years.....	5	69 years.....	31
38 years.....	3	70 years.....	27
39 years.....	10	71 years.....	10
40 years.....	7	72 years.....	17
41 years.....	9	73 years.....	19
42 years.....	9	74 years.....	18
43 years.....	8	75 years.....	21
44 years.....	8	76 years.....	7
45 years.....	8	77 years.....	10
46 years.....	10	78 years.....	4
47 years.....	19	79 years.....	5
48 years.....	15	80 years.....	9
49 years.....	16	81 years.....	4
50 years.....	14	82 years.....	4
51 years.....	18	84 years.....	1
52 years.....	23	85 years.....	2
53 years.....	21	86 years.....	1
54 years.....	22	90 years.....	2
55 years.....	22		
56 years.....	32	Total.....	879

*Home library.*

Number of books on hand June 30, 1905:

Fiction.....	3,617
Travel.....	281
Biography.....	490
Poetry.....	226
History.....	669
Military and naval.....	368
Sports, games, etc.....	60
Religious.....	113
Bound volumes of magazines.....	1,947
Miscellaneous (Government publications, etc.).....	1,619
Total.....	9,390

## Periodicals in reading room:

Daily papers .....	11
Weekly papers .....	17
Monthly publications .....	23
Number of books issued during the year .....	24, 217
Average daily issue of books .....	80

## EXTRA-DUTY MEN AND CIVILIAN EMPLOYEES.

Two hundred and fifty-six of the inmates are employed on extra duty as non-commissioned officers, clerks, janitors, electricians, kitchen and dining room attendants, ward masters, waiters and nurses in hospital, carpenters, painters, assistant plumber, assistant blacksmiths, stablemen, teamsters, gate keepers, and as laborers on the roads and grounds and on the farm.

## THE HERD.

The herd now consists of 2 bulls, 75 cows, 8 heifers, and 8 calves. The milk is of good quality.

## TUBERCULOSIS PATIENTS.

At the United States general hospital at Fort Bayard, N. Mex., for the treatment of consumptives, there have been admitted since last report, as inmates of the Home, 96 discharged soldiers—13 from the Home and 83 direct from the Army. Eighty-three former inmates of the Home have been readmitted and 162 have been discharged; 13 have died.

The total number of inmates of the Home treated there for the past year is 261.

The total number now remaining there is 86.

The expense of the Home on this account, including clothing and transportation, for the fiscal year amounted to \$25,160.46.

## DISCIPLINE.

The rules of discipline have been duly enforced.

## ENTERTAINMENTS AT STANLEY HALL.

Entertainments were given at Stanley Hall during the autumn, winter, and spring at an expense, exclusive of light and heat, of \$1,173.25.

## THE BILLIARD, AMUSEMENT, SMOKING, AND READING ROOMS, MUSEUM AND LIBRARY.

These are kept in good order under charge of noncommissioned officers, and are constantly used and enjoyed by the men.

## THE BAND.

The band consists of one leader, three inmates, and seventeen civilians. In the summer season it gives open-air concerts, two a week at the hospital and five at the Home. In the winter the five at the Home are given in Stanley Hall. It also furnishes music for all entertainments at Stanley Hall and for memorial services and funerals at the cemetery.

## RELIGIOUS SERVICES.

Roman Catholic and Episcopal services are held each Sunday in the chapel.

Funeral services for deceased inmates of the Roman Catholic faith are attended by the Roman Catholic chaplain, and of the deceased Protestant inmates by the Episcopal chaplain.

## NEW BUILDINGS.

The administration building has been completed and the grounds about it graded and terraced.

The new addition to the hospital will be ready for occupancy about the end of July, 1905.

Respectfully,

H. S. HAWKINS,  
Brigadier-General, U. S. Army, Governor.

The Secretary BOARD OF COMMISSIONERS

UNITED STATES SOLDIERS' HOME,

Washington, D. C.



# REPORT OF THE ATTENDING SURGEON OF THE SOLDIERS' HOME.

HOSPITAL UNITED STATES SOLDIERS' HOME,  
Washington, D. C., June 30, 1905.

SIR: I have the honor to submit the following report of the medical department of the Home for the year ending June 30, 1905:

	1905.	1904.	1903.	1902.
Patients remaining in hospital from last report .....	106	111	94	93
Patients admitted to hospital during the year .....	565	743	711	557
Total treated in hospital .....	671	854	805	650
Returned to the Home:				
Recovered, mostly acute cases .....	300	408	363	285
Improved, mostly chronic cases .....	168	218	217	172
Unimproved, incurable .....	40	50	53	47
Sent to the United States Hospital for the Insane .....	6	18	13	12
Died in hospital .....	37	50	53	47
Dead when brought to hospital .....	3	5	6	4
Remaining in hospital at present date .....	117	106	111	94
Total .....	671	854	805	650

## Ages of patients admitted.

	1905.	1904.	1903.	1902.
From 20 to 29 years .....	40.00	69.00	55.00	44.00
From 30 to 39 years .....	82.00	105.00	95.00	74.00
From 40 to 49 years .....	78.00	75.00	96.00	69.00
From 50 to 59 years .....	125.00	165.00	149.00	163.00
From 60 to 69 years .....	129.00	198.00	185.00	119.00
From 70 to 79 years .....	97.00	116.00	113.00	80.00
From 80 to 89 years .....	14.00	15.00	17.00	8.00
From 90 to 99 years .....	None.	None.	1.00	None.
Age of the youngest .....	22.00	21.00	22.00	22.00
Age of the oldest .....	86.00	88.00	92.00	88.00
Average age of patients admitted .....	54.02	55.19	55.21	53.48
Greatest number of patients at one time .....	127.00	123.00	122.00	117.00
Least number of patients at one time .....	104.00	103.00	94.00	90.00
Daily average of patients in hospital .....	115.59	111.25	109.74	103.97

## Diseases for which patients were admitted to hospital.

Abscesses and infections .....	10	Diseases of nose .....	2
Alcoholism .....	79	Diseases of esophagus .....	2
Arthritis .....	6	Diseases of rectum .....	6
Cancer .....	1	Diseases of spinal cord and brain .....	18
Constipation .....	21	Diseases of skin .....	12
Contusions and sprains .....	10	Diseases of stomach .....	31
Debility, nervous and general .....	23	Diseases of tendons .....	3
Diseases of bladder and prostate .....	25	Diseases of throat .....	9
Diseases of bone .....	8	Diseases, venereal .....	2
Diseases of blood .....	3	Epilepsy .....	14
Diseases of ear .....	4	Fever, malarial .....	1
Diseases of eye .....	4	Fever, influenza, etc .....	10
Diseases of glands .....	4	Fractures and dislocations .....	16
Diseases of heart and arteries .....	27	Gangrene .....	3
Diseases of intestines, with diarrhea .....	45	Hernia .....	6
Diseases of joints .....	7	Lipoma .....	2
Diseases of kidneys .....	9	Morphinism .....	13
Diseases of liver .....	2	Pulmonary tuberculosis .....	13
Diseases of lungs and pleura .....	42	Rheumatism .....	46
Diseases, mental .....	19	Wounds .....	5
Diseases of nerves .....	12		

This list exhibits only the diseases complained of by the patient at the time of admission to the hospital, and does not include the numerous complications, operations, nor secondary affections arising during the course of treatment. The principal troubles are tuberculosis, chronic rheumatism, heart disease, hernia, catarrh, epilepsy, dyspepsia, and constipation. Many of the men are affected with two or more of these diseases at the same time, and yet may be admitted for some minor complaint not connected with either.

The 3,601 cases treated at sick call are not included in the above list of diseases.

### Necrology.

Name.	Age.	Nativity.	Last served in company and regiment.	Died.	Cause of death.
1904.					
Markham, Richard.....	73	England .....	C, 4th Cav .....	June 30	Interstitial nephritis.
Golden, Owen .....	60	Ireland .....	L, 3d Cav .....	July 27	Cancer of larynx.
Milans, Henry G .....	86	United States .....	3d Inf .....	July 28	Interstitial nephritis.
Chichester, Reuben .....	74	do .....	Q. M. S., 14th Inf.	Sept. 3	Fracture of skull.
Gayle, Wm. S .....	70	England .....	D, 8th Inf .....	Sept. 19	Cerebral hemorrhage.
Stone, Emery .....	66	United States .....	E, 2d Inf .....	Oct. 2	Cancer of liver.
Fleming, Thomas .....	58	Ireland .....	C, 22d Inf .....	Oct. 8	Pulmonary tuberculosis.
Finnan, John .....	78	do .....	I, 7th Inf .....	Oct. 11	Aortic aneurism.
Hagan, Patrick .....	50	do .....	B, 14th Inf .....	Oct. 31	Locomotor ataxia.
Regan, James .....	67	United States .....	I, 17th Inf .....	Nov. 4	Valvular heart disease.
Weyman, William .....	72	Wales .....	B, 11th Inf .....	Nov. 25	Malignant endocarditis.
McLean, John .....	80	Ireland .....	I, 7th Inf .....	Dec. 12	Cerebral hemorrhage.
Casto, Forest L .....	33	United States .....	B, 2d Inf .....	Dec. 22	Valvular heart disease.
Freeman, Thomas .....	93	Ireland .....	do .....	Dec. 26	Interstitial nephritis.
1905.					
Blum, Joseph .....	75	Germany .....	A, 1st Cav .....	Jan. 5	Do.
Condon, Michael .....	51	Ireland .....	C, 18th Inf .....	Jan. 6	Pneumonia.
Tognetti, Joseph .....	46	Switzerland .....	B, 11th Inf .....	Jan. 8	Acute alcoholic poisoning.
Sample, John .....	38	United States .....	S. M., 24th Inf .....	Jan. 23	Pneumonia.
Kerr, Thomas A .....	78	Ireland .....	G, 20th Inf .....	Feb. 4	Interstitial nephritis.
Mantelo, Thomas J .....	72	United States .....	F, 12th Inf .....	Feb. 5	Pneumonia.
Smith, Alfred H .....	59	do .....	H, 17th Inf .....	Feb. 17	Cancer of esophagus.
Curtiss, Matthew .....	64	Ireland .....	G, 15th Inf .....	Feb. 18	Pulmonary tuberculosis.
Lindgust, John .....	55	Sweden .....	M, 3d Inf .....	Feb. 19	Arterio sclerosis.
Doyle, Joseph .....	56	Ireland .....	D, 4th Art .....	Feb. 23	Pneumonia.
Osborn, Stanley .....	45	United States .....	F, 9th Cav .....	Mar. 1	Pulmonary tuberculosis.
McDonough, Peter .....	78	Ireland .....	B, Engineers .....	Mar. 7	Interstitial nephritis.
Devine, James .....	84	do .....	D, 9th Inf .....	Mar. 8	Do.
McDonald, Thomas .....	64	United States .....	F, 21st Inf .....	Mar. 10	Arterio sclerosis.
Hesse, Frank .....	62	Germany .....	D, 5th Inf .....	do .....	Acute nephritis.
McEndree, John W .....	68	United States .....	D, 2d Inf .....	Mar. 23	Interstitial nephritis.
Meagher, John .....	64	Ireland .....	H, 16th Inf .....	Mar. 28	Cancer of pancreas.
Myers, Chas. H .....	78	United States .....	H, 6th Ir .....	Mar. 29	Pulmonary tuberculosis.
Wilson, Hugh .....	67	Ireland .....	G, 3d Art .....	Apr. 2	Interstitial nephritis.
Rechenberg, Adolpha .....	78	Germany .....	H. S. U. S. A. ....	do .....	Suicide; carbolic acid poisoning.
McDonough, John .....	69	United States .....	E, 11th Inf .....	Apr. 5	Pulmonary tuberculosis.
Fanarty, John .....	84	Ireland .....	Ordnance .....	Apr. 13	Do.
Pollard, Francis .....	70	England .....	A, 10th Inf .....	May 6	Cerebral hemorrhage.
Laughlin, John .....	74	Ireland .....	I, 17th Inf .....	May 8	Interstitial nephritis.
Bahr, William .....	79	Germany .....	E, 44th Inf .....	May 21	Valvular heart disease.
Cunningham, Thomas .....	58	United States .....	F, 12th Inf .....	June 3	Interstitial nephritis.

\* Dead when brought to hospital.

The daily average of inmates present at the Home was: For 1902, 895; for 1903, 927; for 1904, 922; for 1905, 925.

### Proportion of deaths to 100 inmates per annum.

Year.	Per cent.	Year.	Per cent.
1905 .....	4.32	1903 .....	5.17
1904 .....	5.85	1902 .....	4.68

Number of prescriptions compounded during the year..... 18,237  
 Applications for treatment at sick call..... 3,601  
 Number of out-patients connected with the Home treated..... 346

*Statement of expenses from treasurer's records.*

	1905.	1904.	1903.	1902.
Average number of men, including attendants....	187	180	171	157
Subsistence.....	\$24,854.83	\$21,600.96	\$15,675.27	\$14,768.87
Hospital supplies, including medicines, instruments, medical publications, dental materials, etc.....	3,908.58	4,364.61	3,941.91	3,067.40
Compensation of employees.....	14,810.87	14,316.06	12,159.24	10,012.02
Sundries, including household articles, repairs, stationery, etc.....	3,356.91	3,659.76	2,323.60	4,257.51
Laundry.....	3,665.70	1,282.53	722.96	488.08
Fuel and gas.....	2,311.80	3,699.86	2,623.25	2,197.30
Total.....	52,908.69	48,913.57	37,446.93	34,786.18
Cost per man per day.....cents.	77.51	74.24	59.10	60.70

*Monthly statement of expenses of hospital, furnished by treasurer.*

Date.	Subsistence.	Hospital supplies, including medicines, instruments, medical publications, and dentist's materials.	Compensation of employees.	Sundries, including household articles, repairs, stationery, etc.	Laundry.	Total.
1904.						
July.....	\$2,065.52	\$169.86	\$1,202.05	\$393.21	\$263.22	\$4,093.86
August.....	2,076.27	97.69	1,229.90	405.22	318.92	4,123.00
September.....	2,046.24	124.11	1,226.59	233.69	292.26	3,922.89
October.....	2,061.21	1,111.82	1,243.25	130.45	302.96	4,819.71
November.....	2,212.82	101.30	1,245.66	276.38	324.22	4,160.38
December.....	1,827.64	106.96	1,240.50	425.52	306.05	3,900.67
1905.						
January.....	2,174.95	149.50	1,230.98	121.32	305.00	3,981.75
February.....	2,397.43	225.62	1,235.59	189.11	306.96	4,354.11
March.....	2,367.09	193.43	1,252.65	198.57	328.34	4,325.08
April.....	1,816.06	156.67	1,258.95	396.92	282.57	3,906.17
May.....	2,108.52	1,866.82	1,246.92	145.58	393.67	5,220.61
June.....	1,741.08	88.80	1,208.06	505.79	288.11	3,826.81
Total.....	24,854.83	3,908.58	14,810.87	3,356.91	3,665.70	50,596.89
Fuel and gas for the year.....						2,311.80
Total expenditures for the year.....						52,908.69

## DENTIST'S REPORT.

The following is a detailed report of work done for the fiscal year ending June 30, 1905:

Total number of patients treated.....	230	Patients' teeth cleaned.....	33
Amalgam fillings inserted.....	72	Cases of necrosis treated.....	3
Phosphate of zinc fillings inserted.....	50	Disease of antrum treated.....	1
Gutta-percha fillings inserted.....	14	Nerves destroyed and roots filled.....	23
Gold fillings inserted.....	2	Abcesses cured and roots filled.....	18
Porcelain fillings inserted.....	2	Number of miscellaneous treatments.....	317
Artificial dentures inserted.....	62		
Artificial dentures repaired.....	20		
Crowns placed.....	7	Total number of operations performed.....	
Bridges placed.....	11		
Extractions.....	245		

The general sanitary condition of the Home and grounds has been excellent throughout the year. The water supply and drainage are satisfactory, and there has been no prevalent or epidemic disease among the inmates.

There is nothing of special interest to report for the past fiscal year. The work of clinical assistants, sisters, and nurses has been very satisfactory, and the hospital has run smoothly. The orderlies are unsatisfactory and are often changed. It is very difficult to find men well adapted to the purpose among the inmates, but there seems to be no better method of providing them.

The new building is almost completed, but will not be available for use until some plan is devised for drying out the subbasement. It is proposed to install a boiler in the fan house to temporarily heat the building pending the completion of the central heating, lighting, and power plant, which is proposed but not yet under construction.

The most urgently needed improvement in the old hospital will be the providing of better cooking and messing facilities. The present kitchen is dark, hot, poorly ventilated, and entirely inadequate even for the present capacity of the hospital. Plans for carrying out this improvement have been made and will be submitted to the Board at an early date. Many other minor improvements in the old hospital will be taken up, and it is hoped that by the end of the next fiscal year the whole establishment will be in much better condition than at any previous inspection.

It is proposed to use one of the least useful wards in the original building as an amusement room for convalescent, chronic, and incurable cases. The rooms now occupied by the nurses (Ward E) it is proposed to open up by removing partitions, making one large ward. Better provision will be made for the segregation of tuberculous cases too far advanced to be transferred to Fort Bayard, N. Mex.

The new building, while very large and airy, has several serious defects that will have to be corrected. There are not enough water-closets on the second floor. The operating room and adjoining "recovery rooms" are not ventilated satisfactorily, and are very hot in summer. The lighting of the operating room is poor. The assembling of all toilets and water-closets in the center of the building is, in my opinion, a bad arrangement, but the correction of it without very extensive alterations is impracticable. The plans for the building were completed when I took charge, and it was too late for any material modifications to be considered. The building from the north front is very bare looking and unsightly. It would be much improved in appearance and the comfort of the patients much enhanced by the addition of verandas on the first and second floors, with groups of light iron pillars, painted white, corresponding to the architectural design of the original building.

All of these questions will be taken up in special reports to the Board of Commissioners.

Very respectfully,

WM. H. ARTHUR,

*Major and Surgeon, U. S. Army, Attending Surgeon.*

THE GOVERNOR OF THE HOME.

## **REPORT OF THE TREASURER OF THE HOME.**

**SOLDIERS' HOME, OFFICE OF SECRETARY AND TREASURER,  
Washington, D. C., July 18, 1905.**

SIR: I have the honor to transmit herewith the following reports for the fiscal year ending June 30, 1905:

Statement of receipts and expenditures of the Home fund, with recapitulation, and comparative statement for the previous year.

Statement of the permanent fund and interest account, as shown by the warrant division of the Treasury Department.

Statement of treasurer's account with inmate pensioners.

Statement of pensioners in the Home, with rate of pensions, etc.

Statement of members of the Home receiving outdoor relief, rates of relief, etc.

Statement of expenditures on account of members of the Home under medical treatment at United States general hospital, Fort Bayard, N. Mex.

Farm, garden, and dairy accounts.

Very respectfully,

**H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.**

**The ACTING GOVERNOR OF THE HOME.**

## Statement showing receipts and expenditures of Soldiers' Home, District of Columbia, during the fiscal year ending June 30, 1905.

Receipts and expenditures.	1904.						1905.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
RECEIPTS.													
From the United States Treasury, upon resolution of Board of Commissioners, approved by the Board.	\$13,000.00	\$45,000.00	\$90,000.00	\$30,000.00	\$25,000.00	\$75,000.00	\$33,000.00	\$28,000.00	\$64,000.00	\$5,800.00	\$37,000.00	\$58,500.00	\$474,100.00
From interest on permanent fund.	29,871.52			31,068.31			30,000.00			30,830.57			121,562.26
From effects of deceased inmates, subject to demand of legal heirs.	57.70	235.00	32.83	82.30	122.25	198.73	28.91	38	278.73	88.44	28.16	53.15	1,199.58
From miscellaneous sources.	3,051.37	357.61	246.79	368.16	411.11	585.79	343.63	271.56	411.89	331.07	405.37	342.53	7,106.98
Total receipts . . . . .	45,980.59	45,592.61	60,279.62	61,518.77	25,533.36	75,754.52	63,694.40	28,271.94	64,680.72	38,350.08	37,437.53	58,900.68	603,998.82
EXPENDITURES.													
Repairs to officers' quarters.	112.43	34.66	91.05	30.55	64.95	5.00	5.10	8.25	74.60	153.98	1.00	5.58	590.15
Compensation to officers and secretaries.	383.38	383.33	383.33	383.33	383.33	404.16	555.52	404.16	404.16	404.16	404.16	404.16	4,987.13
Transportation furnished to discharged soldiers en route to the Home, cost to be refunded.	25.55	84.16	47.65	14.55	144.90	32.80	10.00	6.75	55.45	58.05	105.68	15.40	600.94
Fuel for the Home and hospital.			1,883.09	5,564.40		2,753.88	2,539.37	6,196.08	1,850.68	4,830.56	1,158.40	1,466.40	27,801.84
Expenses for drugs and druggists' supplies, photographs, and X-ray supplies, running expenses of the hospital, and pay of civilian employees (does not include subsistence).													
Refunded to claimants as heirs of deceased soldiers and inmates.	1,015.27	1,109.90	972.00	1,853.27	990.65	1,107.19	899.69	994.82	902.99	1,162.94	2,201.19	1,000.52	14,150.43
Clothing for inmates, Home and hospital.	318.06	76.29	255.00		141.60	60.40	145.25			74.20		72.16	1,142.90
Subsistence stores and ice, Home and hospital.		1,290.60	10,831.05	1,377.98	273.00	125.12							
Home mess and kitchen utensils, articles for police purposes, beds, bedding, upholsterer's supplies, etc.		6,238.95	6,896.60	6,075.46	6,640.86	7,518.00		2,094.81	6,340.42	1,522.58	682.67		24,438.23
Expenses of farm and dairy, articles for lawns and grounds, seed, guano, manure, cultivation and ornamentation of lawns, and pay of civilian employees.							7,907.36	6,503.27	7,597.77	7,580.30	6,707.25	7,823.87	82,652.98
General repairs to buildings, roads, and fences, harness, repairs to and purchase of vehicles, and purchase of mechanical tools, etc.	431.36	1,007.26	544.43	93.96	992.05	742.57	957.24	918.17	477.14	452.38	303.92	253.40	6,514.20
	2,458.96	2,008.66	2,170.46	2,672.87	2,393.59	2,678.96	2,123.02	2,116.16	2,436.76	2,368.54	2,577.23	3,147.45	29,130.40
	397.73	183.65	657.92	487.20	721.10	423.28	535.82	400.43	812.87	647.27	734.90	2,089.50	8,041.67

SOLDIERS' HOME, DISTRICT OF COLUMBIA.

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Forage and medicine, and purchase of articles required for Home stables.	650.96	904.94	756.94	800.14	990.45	2,020.02	1,112.34	73.22	140.11	383.24	421.93	713.68	9,067.97
Incidental expenses, rental of telephone, carriage hire, traveling expenses, professional services, freight, telegrams, amusement, stationery, etc., for governor and treasurer's offices, and office Board of Commissioners	298.53	184.43	117.31	171.42	314.28	226.35	253.69	383.82	184.21	419.90	274.65	256.45	3,085.84
Religious services and repairs to Home chapel	241.00	238.00	238.00	240.25	278.70	238.00	243.90	238.00	238.00	238.00	238.00	238.55	2,898.00
Laundry work for Home and hospital	1,053.94	1,082.41	1,067.02	1,104.99	1,142.96	238.00	1,140.22	1,143.24	1,150.02	1,145.96	2,214.05	1,056.32	13,291.03
Compensation to inmates	2,994.70	3,400.21	3,739.50	3,634.01	3,610.65	3,510.73	3,405.65	3,290.48	3,217.07	3,437.38	8,249.82	8,992.74	41,730.94
Gas	84.70	24.80	27.80	41.80	68.60	101.80	92.90	87.80	102.20	69.80	58.10	74.00	778.70
Funeral expenses members residing outside and material for coffins for those dying at the Home	132.32	73.95	94.62	68.10	60.00	-----	97.84	83.40	103.95	135.02	-----	24.56	873.78
Commutation to members of the Home residing outside (outdoor relief)	380.67	224.80	5,887.00	271.00	184.00	5,286.00	473.00	186.67	5,455.00	280.80	195.20	5,371.00	24,106.14
Board and medical treatment of members of the Home in the Government Hospital for the Insane	2,052.14	-----	-----	2,222.14	-----	-----	2,159.28	-----	-----	2,114.29	-----	-----	8,547.85
Board and medical treatment of members of the Home in United States general hospital at Fort Bayard, N. Mex., including transportation and funeral expenses	1,820.35	1,928.90	1,848.18	1,898.34	2,513.53	1,647.24	1,897.51	2,040.91	1,922.63	2,304.95	2,042.14	2,140.27	24,004.96
Spectacles, trusses, and artificial limbs	16.00	19.00	13.00	46.00	15.00	10.00	7.50	20.00	12.50	11.50	14.00	14.25	198.75
Purchase of animals (cows and horses) Expenses of Home library for books, periodicals, newspapers, stationery, magazines, stamps for nonpensioners, bookbinding, etc.	12.49	21.76	24.55	11.46	72.35	20.89	15.32	257.61	17.96	21.64	18.59	30.39	595.21
Permanent improvements, paving gutters, sidewalks, concreting, improvements to roads and grounds, sewerage, care of lawns and grounds.	5,944.94	5,437.71	4,737.79	2,772.09	3,529.25	2,406.63	2,430.78	2,448.53	3,939.20	5,930.39	8,760.36	3,569.38	46,791.15
New administration building	5,924.56	7,619.11	13,868.29	407.84	2,515.41	6,942.17	5,672.31	10,968.14	165.23	1,958.74	381.75	151.05	56,890.47
Addition to hospital	11,892.95	13,825.20	33,612.87	868.91	19,466.76	10,539.64	13,657.88	6,642.58	7,438.75	19,407.04	80,473.48	17,411.64	194,725.70
Mess hall	-----	-----	-----	-----	-----	10,000.00	-----	-----	624.80	350.41	15.20	200.00	11,190.47
Total expenditures	44,744.48	46,842.52	89,720.78	83,242.87	49,475.99	48,258.35	59,313.75	46,768.75	46,661.25	57,663.86	56,374.69	51,003.72	630,076.51

Correct:

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

## SOLDIERS' HOME, DISTRICT OF COLUMBIA.

## RECAPITULATION.

RECEIPTS.	
Balance on hand June 30, 1904-----	\$53,949.65
Received from United States Treasurer, upon resolution of Board of Commissioners-----	474,100.00
Received from interest on permanent fund-----	121,592.28
Received from effects of deceased inmates, subject to demand of legal heirs-----	1,199.58
Received from miscellaneous sources-----	7,106.98
Total-----	657,948.47
EXPENDITURES.	
Repairs to officers' quarters-----	\$590.15
Compensation to officers and secretary Board of Commissioners-----	4,897.13
Transportation furnished discharged soldiers-----	600.94
Fuel for Home and hospital-----	27,801.84
Hospital expenses-----	14,150.43
Refunded to claimants as heirs of deceased soldiers and inmates-----	1,142.90
Clothing for inmates, Home and hospital-----	24,438.23
Subsistence stores and ice, Home and hospital-----	82,622.98
Home mess and kitchen utensils and articles for buildings-----	6,514.20
Expenses of farm and dairy and pay of civilian employees-----	29,130.40
General repairs-----	8,041.67
Forage and medicines for public animals-----	9,067.97
Incidental expenses-----	3,085.34
Religious services and expenses of Home chapel-----	2,896.00
Laundry work for Home and hospital-----	13,291.03
Compensation to inmates-----	41,730.94
Gas-----	778.70
Funeral expenses-----	873.76
Commutation to members residing away from the Home-----	24,108.14
Board and medical treatment of members of the Home in the Government Hospital for the Insane, Washington, D. C.-----	8,547.85
Fort Bayard expenses-----	24,004.96
Spectacles, trusses, and artificial limbs-----	198.75
Purchase of public animals-----	1,369.20
Library expenses-----	595.21
Permanent improvements-----	46,791.15
Administration building-----	56,890.47
Addition to hospital-----	184,725.70
Mess hall-----	11,190.47
Balance on hand June 30, 1905-----	27,871.96
Total-----	657,948.47

Correct:

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

*Comparative statement of money received and expended on account of Soldiers' Home, Washington, D. C., from July 1, 1904, to June 30, 1905.*

Received from July 1, 1903, to June 30, 1904-----	\$466,317.03
Expended from July 1, 1903, to June 30, 1904-----	412,367.38
Balance on hand June 30, 1904-----	53,949.65
Received from July 1, 1904, to June 30, 1905-----	657,948.47
Expended from July 1, 1904, to June 30, 1905-----	630,076.51
Balance on hand June 30, 1905-----	27,871.96
Expended for the year ending June 30, 1905, on new buildings and permanent improvements-----	209,597.79
Expended on account of inmates on outdoor relief at United States general hospital, Fort Bayard, N. Mex., and at United States Government Hospital for the Insane-----	56,764.13
Running expenses of the Home for year ending June 30, 1905-----	273,714.59
Total running expenses-----	330,478.72
Average cost per man per year*-----	297.10
Average cost per man per month-----	24.76
Average number of inmates present for the year ending June 30, 1905-----	921
Average number of persons for whom subsistence was provided for the year ending June 30, 1905-----	996½
Average monthly cost per man for subsistence, including farm and dairy products-----	\$7.45
Average daily cost per man for subsistence, including farm and dairy products-----	\$0.244

I certify that the above statement is correct.

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

\* This is based on running expenses of the Home.



*Statement of the Soldiers' Home permanent fund account from July 1, 1904, to June 30, 1905.*

Date.		Partial amounts.	Dr.	Cr.
	Balance.....			\$3,965,606.59
1904.				
July 1	Amount of deposits.....	\$238,293.29		
Nov. 28	do.....	68,902.76		
1905.				
Feb. 25	Amount of deposits.....	212,281.41		
June 28	do.....	224,314.79		
				743,792.25
1904.				
July 2	Less amount paid from permanent fund.....	13,000.00		
Aug. 1	do.....	45,000.00		
Sept. 3	do.....	60,000.00		
Oct. 5	do.....	30,000.00		
Nov. 10	do.....	25,000.00		
Dec. 1	do.....	75,000.00		
1905.				
Jan. 12	Less amount paid from permanent fund.....	33,000.00		
Feb. 10	do.....	28,000.00		
Mar. 6	do.....	64,000.00		
Apr. 25	do.....	5,600.00		
May 2	do.....	37,000.00		
June 5	do.....	58,500.00		
	Balance.....		\$474,100.00	
			4,235,297.84	
	Total.....		4,709,397.84	4,709,397.84

H. M. KENDALL,

Major, U. S. Army, Secretary and Treasurer.

*Statement of the Soldiers' Home interest account from July 1, 1904, to June 30, 1905.*

	Partial amounts.	Dr.	Cr.
Balance July 1, 1904.....			\$29,871.52
Interest on balance, \$3,965,606.59, from July 1 to Sept. 30, 1904.....	\$29,742.04		
Interest on deposits, \$238,293.29, from July 1 to Sept. 30, 1904.....	1,787.20		
			31,529.24
Interest on balance, \$4,085,896.88, from Oct. 1 to Dec. 31, 1904.....	30,644.24		
Interest on deposits, \$68,902.76, from Nov. 28 to Dec. 31, 1904.....	192.55		
			30,836.79
Interest on balance, \$4,024,801.64, from Jan. 1 to Mar. 31, 1905.....	30,186.01		
Interest on deposits, \$212,281.41, from Feb. 25 to Mar. 31, 1905.....	610.67		
			30,796.68
Interest on balance, \$4,112,083.05, from Apr. 1 to June 30, 1905.....	30,840.62		
Interest on deposits, \$224,314.79, from June 28 to June 30, 1905.....	55.81		
			30,896.93
Less interest on principal paid:			
Third quarter of 1904.....	460.98		
Fourth quarter of 1904.....	514.93		
First quarter of 1905.....	466.11		
Second quarter of 1905.....	345.71		
		\$1,787.68	
Less interest paid:			
Third quarter of 1904.....	29,871.52		
Fourth quarter of 1904.....	31,068.31		
First quarter of 1905.....	30,321.86		
Second quarter of 1905.....	30,330.57		
		121,592.26	
Balance.....		30,550.22	
Total.....		153,930.16	153,930.16

H. M. KENDALL,

Major, U. S. Army, Secretary and Treasurer.

*The treasurer of the United States Soldiers' Home, Washington, D. C., in account with the inmate pensioners for moneys received under section 4, act approved March 3, 1883, and deposited with the Treasurer of the United States, Washington, D. C.*

Date.	Moneys received.	Amount.
1904.		
July 1	To balance on hand.....	\$50,398.96
July 27	John R. King's checks.....	47.52
Aug. 17	do.....	664.90
Sept. 28	do.....	30,727.08
Oct. 26	do.....	782.15
Nov. 16	do.....	329.38
Dec. 31	do.....	33,626.17
1905.		
Jan. 25	John R. King's checks.....	1,460.80
Feb. 15	do.....	207.70
Mar. 30	do.....	33,478.00
Apr. 26	do.....	445.10
May 24	do.....	434.17
June 27	do.....	30,888.30
	Total.....	182,990.18
Date.	Moneys disbursed.	Amount.
1904.		
July 12	By amount paid the estate of Chas. A. Rubin, deceased.....	\$36.00
Do	By amount paid the estate of John Doherty, deceased.....	10.00
July 15	By amount transferred to Home fund under section 4, act approved Mar. 3, 1883.....	2,768.15
July 30	By amount pension pay roll for July, 1904.....	1,070.47
Do	By amount paid the estate of Thomas Ryan, deceased.....	170.00
Aug. 31	By amount pension pay roll for August, 1904.....	1,469.70
Sept. 30	By amount pension pay roll for September, 1904.....	26,101.46
Do	By amount pension pay roll for September, 1904, Fort Bayard, N. Mex.....	2,388.00
Oct. 10	By amount paid the estate of Bernard Ruege, deceased.....	46.00
Oct. 31	By amount pension pay roll for October, 1904.....	1,394.82
Nov. 30	By amount pension pay roll for November, 1904.....	682.50
Dec. 12	By amount paid committee of Jos. Craney, insane.....	51.00
Dec. 21	do.....	137.00
Dec. 31	By amount pension pay roll for December, 1904.....	27,906.76
Do	By amount pension pay roll for December, 1904, Fort Bayard, N. Mex.....	2,498.10
1905.		
Jan. 3	By amount paid the estate of Jas. Regan, deceased.....	800.00
Jan. 16	By amount paid the estate of Patrick Hagan, deceased.....	1,416.00
Jan. 31	By amount pension pay roll for January, 1905.....	2,250.86
Feb. 18	By amount paid the estate of Alfred Smith, deceased.....	52.00
Feb. 28	By amount pension pay roll for February, 1905.....	227.14
Mar. 14	By amount paid committee of Richard Murray, insane.....	42.00
Mar. 16	By amount paid committee of Jos. Craney, insane.....	69.37
Mar. 22	By amount paid the estate of Frank Hesse, deceased.....	56.00
Mar. 31	By amount pension pay roll for March, 1905.....	26,701.24
Do	By amount pension pay roll for March, 1905, Fort Bayard, N. Mex.....	2,737.98
Apr. 30	By amount pension pay roll for April, 1905.....	1,731.00
May 31	By amount pension pay roll for May, 1905.....	1,825.97
June 30	By amount pension pay roll for June, 1905.....	27,394.60
Do	By amount pension pay roll for June, 1905, Fort Bayard, N. Mex.....	3,706.50
	Balance in United States Treasury.....	47,804.61
	Total.....	182,990.18

I certify on honor that the above account is correct.

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

## SOLDIERS' HOME, DISTRICT OF COLUMBIA.

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*Annual report of the number of pensioners in the United States Soldiers' Home,  
District of Columbia, rates of pension, etc., June 30, 1905.*

Pensioners drawing—		Pensioners drawing—Continued.	
\$6 per month	172	\$20 per month	5
\$8 per month	130	\$22 per month	2
\$10 per month	73	\$24 per month	37
\$11.25 per month	1	\$25 per month	2
\$12 per month	312	\$27 per month	2
\$14 per month	56	\$30 per month	43
\$15 per month	1	\$46 per month	2
\$16 per month	23		
\$17 per month	120	Total	983
\$18 per month	2		
Pensioners present in the Home:			
Pensioners whose money is drawn by treasurer			771
Pensioners who have assigned their certificates			3
			774
Pensioners absent:			
On outdoor relief			209
Total number of pensioners June 30, 1905			983
Total number of pensioners June 30, 1904			1,034
Alterations since last report, June 30, 1904:			
New certificates received for inmates			50
Admitted and readmitted			373
Total			423
Loss by discharge			319
Loss by death			34
Total			353
Net gain during the year			70
Description of certificates:			
Army—			
Regular establishment			522
Civil war			64
Act of June 27, 1890			175
War with Spain			120
Mexican war			89
Indian war			4
Navy—			
Regular establishment			2
Civil war			1
Act of June 27, 1890			6
Total			983

NOTE.—Twenty-five pension certificates have been transferred to the Superintendent of the Government Hospital for the Insane, in compliance with act of Congress approved February 20, 1905.

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

*Report of members of the United States Soldiers' Home receiving outdoor relief  
June 30, 1905, rates of relief, pensions, loss during year, etc.*

Receiving outdoor relief:		Receiving pensions—Continued:	
\$8 per month-----	236	\$14 per month-----	2
\$7 per month-----	1	\$16 per month-----	8
\$4 per month-----	1	\$17 per month-----	11
\$2 per month-----	48	\$24 per month-----	3
Total-----	286	\$27 per month-----	1
Receiving outdoor relief June 30, 1904-----	314	\$30 per month-----	5
Net loss during the year-----	28	Total-----	209
Of the number receiving outdoor relief there are nonpensioners-----	77	Nonpensioners-----	77
Receiving pensions:		Total-----	286
\$6 per month-----	64	Of this number there are—	
\$8 per month-----	30	Mexican war survivors-----	77
\$10 per month-----	8	Men who have served twenty-five years or more-----	37
\$11.25 per month-----	1	Of the latter there are nonpensioners-----	10
\$12 per month-----	81		

Twenty members of the Home on outdoor relief died since date of last report.  
Twelve members were dropped from outdoor relief after June, 1904, in compliance with resolution of the Board of Commissioners dated July 19, 1904.

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

*Statement relative to members of the Home on outdoor relief from July 1, 1904,  
to June 30, 1905.*

Average number from July 1, 1904, to June 30, 1905-----	292
Total amount paid for outdoor relief during the year ending June 30, 1905-----	\$24,108.14
Average amount paid per man for one year-----	\$82.53
Average amount paid per man for one month-----	\$6.88
Highest amount paid for one man for one month-----	\$8.00
Lowest amount paid for one man for one month-----	\$2.00

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

*Annual report of expenditures on account of members of the Home at United  
States general hospital, Fort Bayard, N. Mex., for the year ending June  
30, 1905.*

Date.	Mainte- nance.	Transpor- tation.	Coffins, etc.	Freight on clothing.	Total.
1904.					
July-----	\$1,780.00	\$40.35			\$1,820.35
August-----	1,887.55	41.35			1,928.90
September-----	1,815.00	33.18			1,848.18
October-----	1,769.29	124.05			1,893.34
November-----	1,736.48	119.05	\$663.00		2,518.53
December-----	1,639.80			\$7.44	1,647.24
1905.					
January-----	1,897.51				1,895.51
February-----	2,002.86	42.05			2,044.91
March-----	1,881.28	71.70			1,952.98
April-----	2,233.60	48.55		27.81	2,304.96
May-----	2,042.14				2,042.14
June-----	2,073.57	66.70			2,140.27
Total-----	22,759.08	581.98	663.00	35.25	24,039.31

Correct:

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

*Farm and dairy account, United States Soldiers' Home, from July 1, 1904, to June 30, 1905.*

DR.					
To labor, forage, fertilizers, seeds, implements, repairs, and purchase of animals	\$18,967.57		By 56 bushels onions	-----	\$33.20
To balance to credit of farm and dairy	2,034.13		By 25 bushels oyster plant	-----	43.00
Total	21,001.70		By 5,020 bunches parsley	-----	251.00
CR.			By 99½ bushels parsnips	-----	60.75
By 6½ bushels asparagus	21.25		By 40 bushels radishes	-----	20.00
By 92 bushels string beans	72.00		By 2,105 bunches rhubarb	-----	101.25
By 46 bushels lima beans	46.00		By 553 bushels spinach	-----	271.50
By 224 bushels beets	119.00		By 55 bushels peas	-----	55.00
By 20,614 pounds cabbage	260.26		By 365 bushels tomatoes	-----	175.00
By 62½ bushels carrots	44.01		By 266½ bushels turnips	-----	125.20
By 575 bunches celery	28.30		By 100 bushels squash	-----	20.40
By 740 dozen ears corn	74.00		By 3 bushels peppers	-----	3.00
By 2½ dozen okra	3.75		By 905 watermelons	-----	88.84
By 25 bushels cucumbers	18.75		By 78 crates cantaloupes	-----	117.00
By 207 dozen eggplants	6.21		By 36,748 gallons milk	-----	7,349.00
By 216 bushels kale	108.00		By 272½ tons hay	-----	4,465.38
By 5,605 heads lettuce	56.05		By 240 tons ensilage	-----	1,200.00
			By sale of stock	-----	608.00
			Fed to stock:		
			350 bushels turnips	-----	140.00
			300 bushels parsnips	-----	150.00
			40 bushels salsify	-----	40.00
			Value of stock	-----	4,826.00
			Total	-----	21,001.70

The stock on June 30, 1905, consisted of 2 bulls, 75 cows, 8 heifers, 8 calves, 1 horse, and 8 mules.

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.

*Garden account of United States Soldiers' Home from July 1, 1904, to June 30, 1905.*

DR.					
To labor, fertilizer, seeds, tools, and implements	\$4,631.20		By 37,000 plants, trees, and shrubs raised in garden and greenhouse	-----	\$2,405.00
			By 25 cords of wood	-----	87.50
			By balance to debit of garden expended in improvement of grounds	-----	2,188.70
Total	4,631.20		Total	-----	4,631.20

NOTE.—This department has the care of the ornamentation of the grounds, lawns, flowers, shrubs, trees, etc.

H. M. KENDALL,  
Major, U. S. Army, Secretary and Treasurer.



## REPORT OF THE INSPECTION OF THE SOLDIERS' HOME.

WAR DEPARTMENT,  
OFFICE OF THE INSPECTOR-GENERAL,  
*Washington, August 26, 1905.*

SIR: I have the honor to submit the following report of an inspection of the Soldiers' Home, District of Columbia, for the fiscal year ending June 30, 1905, made July 6 and 7, 1905, in accordance with the requirements of the act of Congress approved March 3, 1883.

Maj. F. S. Strong, Artillery Corps, Acting Inspector-General, and Mr. William T. Kent, expert accountant of the Inspector-General's Department, gave valuable aid in the inspection of the Home and its accounts and disbursements.

### GENERAL CONDITION.

While a few minor defects were observed, and the attention of those concerned invited thereto, the Home was, when considered generally, in admirable condition. Even of the defects noted several were of such nature as to preclude action or the application of correctives by the governor without permission of higher authority; such, for instance, as needed repairs and construction.

### OFFICERS.

At the date of inspection the roster of the officers was as follows:

Governor, Brig. Gen. H. S. Hawkins, retired; deputy governor, Col. E. B. Williston, retired; secretary and treasurer, Maj. Henry M. Kendall, retired; surgeon, Maj. William H. Arthur, U. S. Army. There had been no change in the officers since the preceding inspection.

The officers on duty here are conscientious, zealous, and active in the discharge of the many important duties devolving upon them.

### POPULATION.

The number of officers and members present on June 30 was 883; absent, 455; total, 1,338, as against 1,336 the previous year—a net gain of 2. The average number present during the year was 925; average number absent, 440; total average number present and absent, 1,365. The highest number present on any one day was 974, on February 2, 1905; and the lowest was 851, on July 3, 1904. The average temporarily cared for was 36, and the total number cared for during the year was 1,925.

The following tabulation is a summary of the gains and losses:

<b>Gains:</b>		
By first admission	-----	435
By readmission	-----	266
Total	-----	701
<b>Losses:</b>		
By discharge	-----	392
By dishonorable discharge	-----	25
By dropped from rolls	-----	183
By death	-----	84
By transfer to Government insane asylum	-----	12
Total	-----	696

The average age of members to June 30, 1905, was 58.85 years, as against 59.50 for the preceding year—a decrease of 0.65 of a year. The average age of members for the preceding six years has been as follows:

	Years.		Years.
1899	55.42	1902	56.71
1900	56.16	1903	55.78
1901	59.33	1904	59.50

The average age of members who served in the civil war and prior wars was 68 years; of those who served in the Spanish war and subsequent wars, 43 years.

#### DISCIPLINE.

The discipline, so far as could be observed, was satisfactory. The principal offenses committed during the year consisted of drunkenness, absence without leave, and introducing liquor into the Home. During the year there were 291 arrests, 116 trials for drunkenness, and 83 trials for absence without leave. The total number of members offending was 176, or 11.67 per cent of the average present.

#### LIBRARY.

At the close of the year there were 9,390 volumes in the Home library, 360 having been added during the year. Twelve volumes were worn out or stolen during the same period. Two newspapers are sent to the library without cost, and 28 newspapers and 23 periodicals are subscribed for.

#### BAND.

The average number of men in the band was 21, of whom 18 were civilians and 3 were members of the Home. The total cost of the band for the year, including subsistence and other allowances of civilians, was \$8,046.04. The average monthly compensation of the leader was \$55; of members, \$25; of civilians, \$27.

#### THEATER.

The theater building is very attractive both inside and out, and is kept in splendid condition. The expenses during the year for theatrical performances aggregated \$1,173.25. There is no charge of admission for members or others.



## RELIGIOUS SERVICES.

The facilities for religious services consist of a beautiful chapel in which services are held by both the Catholic and the Episcopal chaplains. The average attendance at regular services was reported as 25 to 100, or from 2.7 to 10.8 per cent of the average present. The chaplains also hold funeral services and attend sick members.

## RESERVATION, FARM, ETC.

There has been no change since the last inspection in the area of the reservation, which consists of 502 acres, admirably kept. About 3 miles of new stone fencing is required to properly inclose the reservation. It can be built in the same durable and attractive style as that already constructed for about \$30,000.

The farm consists of 165 acres, 145 of which are used as a farm proper and 20 acres for vegetables.

There is a herd of 75 cows which produced during the year 36,748 gallons of milk at a cost of 20 cents a gallon. The price of milk per gallon, by the quantity, in the adjoining city of Washington is 30 cents.

On June 30, 1905, there was farm stock on hand of the estimated value of \$4,826.

An average of 21 farm hands were employed—2 members and 7 civilians—on the farm and vegetable garden, 7 civilians in the flower garden, and 5 civilians in teaming.

The following is a statement of the farm and vegetable products during the year, by items, viz:

Article.	Quantity.	Value.	Article.	Quantity.	Value.
Asparagus.....bushels..	6½	\$21.25	Radishes.....bushels..	40	\$20.00
Lima beans.....do.....	46	46.00	Spinach.....do.....	553	271.50
Cabbage.....pounds.....	20,614	260.26	Tomatoes.....do.....	365	175.00
Celery.....bunches.....	575	28.30	Squashes.....do.....	100	20.40
Okra.....dozen bunches.....	2½	3.75	Milk.....gallons.....	36,748	7,349.60
Egg plants.....dozens.....	207	6.21	Salsify.....bushels.....	40	40.00
Lettuce.....bunches.....	5,005	56.05	Watermelons.....number..	905	87.84
Oyster plant.....bushels.....	25	43.00			
Parsnips.....do.....	99½	60.75	Total turned into commissary.....		9,611.32
Rhubarb.....bunches.....	2,105	101.25			
Peas.....bushels.....	55	55.00	Hay.....tons.....	272½	4,465.38
Turnips.....do.....	206½	125.20	Parsnips.....bushels.....	300	150.00
Peppers.....do.....	3	3.00	Ensilage.....tons.....	240	1,200.00
Cantaloupes.....crates.....	78	117.00	Turnips.....bushels.....	350	140.00
String beans.....bushels.....	92	72.00			
Beets.....do.....	224	119.00	Total fed to stock.....		5,955.38
Carrots.....do.....	62½	44.01			
Ears of corn.....dozens.....	740	74.00	Calves sold.....		609.00
Cucumbers.....bushels.....	25	18.75			
Kale.....do.....	216	108.00	Total value all products.....		16,175.70
Onions.....do.....	56	33.20			
Parsley.....bunches.....	5,020	251.00			

Value of farm products—	
Turned into commissary.....	\$9,611.32
Fed to stock.....	5,955.38
Sold (calves).....	609.00
Total.....	16,175.70
Cost of maintaining—	
Farm proper.....	18,967.57
Lawn and flower garden.....	4,631.20
Total.....	23,598.77

## BUILDINGS.

There are 5 barracks, 3 of brick and 2 of stone, which were originally intended to accommodate 740 men, but 880—an excess of 140—were occupying them at the time of the inspection. The average dormitory air space per man is 1,396 cubic feet. There are 48 bath tubs, with an average of 19 men to each; and in the different barracks there are altogether 59 urinals.

The new wash basins in Scott Building have no hot water. The basins in the other buildings have.

There are no screens in the windows of any of the buildings, except a few which were purchased by the members themselves. Flies were very bad, especially in Scott Annex. All rooms should be screened.

The rooms on the third floor of Scott Annex are somewhat crowded when all the occupants are present. However, there are nearly always some absentees, which relieves the pressure somewhat. The ceilings in this building are not as high as in the others.

The halls of Sheridan Building should be refloored. The floors are of poor quality and badly worn. The floors of some of the rooms are in the same condition. The basement of this building is damp, and should not be occupied as living quarters. There are now several such rooms in use. Drinking men seek these rooms because they are secluded, and they are thus enabled to get in and out of them without being noticed.

The halls of many of the rooms in the King Building need painting. The new electric wiring put in left the walls badly defaced where the old wooden strips were placed. The hall floors in this building are poor and should be relaid. The basement is very damp and should not be occupied as a living room. There were 22 men quartered there, some of them with rheumatism. This is the only one of the buildings provided with an elevator. They should be installed in all the other barrack buildings.

Anderson Cottage requires painting on the inside. New bath tubs should be provided, and the bathroom enlarged, which could be effected at slight expense by removing a partition. The band and about 20 other men—42 in all—occupy this building, for the accommodation of whom there are only two old tubs, in a very contracted space.

There is one storehouse, constructed of brick, which was in good condition, and seemed to be excellently conducted in every way.

During the year the improvements (not repairs) made consisted of the electric wiring of all the buildings, except the officers' quarters, laying 10-inch sewer pipes in Sheridan Building, and terracing around the administration building. These improvements cost \$46,791.15. The cost of repairs (not construction) was \$8,041.67. The most considerable of these repairs were those to the boiler house, \$1,260; general repairs at hospital, \$3,255, and repairs to gate houses, \$670.

## GENERAL FUND.

The treasurer reports the following receipts and expenditures under the general fund for the year ending June 30, 1905, to wit:

## Receipts:

Balance on hand July 1, 1904.....		\$53, 949. 65
Permanent fund .....	\$474, 100. 00	
Interest fund .....	121, 592. 28	
Pension fund .....	2, 768. 15	
Sales .....	3, 550. 05	
Collections .....	1, 034. 28	
Posthumous sources .....	954. 08	
		<u>603, 998. 82</u>

Total ..... 657, 948. 47

## Disbursements:

Current expenses .....	\$76, 020. 03	
Subsistence .....	82, 622. 98	
Clothing .....	24, 438. 23	
Household .....	48, 385. 77	
Hospital .....	14, 150. 43	
Farm .....	18, 967. 57	
Repairs .....	8, 631. 92	
Transportation .....	600. 94	
	<u>273, 817. 87</u>	
Outdoor relief .....	24, 108. 14	
Construction .....	252, 806. 64	
Permanent improvements .....	46, 791. 15	
Patients, Fort Bayard, N. Mex.....	24, 004. 96	
Patients, United States Insane Asylum.....	8, 547. 85	
		<u>630, 076. 61</u>

Balance on hand July 1, 1905..... 27, 871. 86

Of the disbursements, \$526,431.14 was expended by check and \$103,645.37 in currency.

The total amount expended during the year, \$630,076.61, is an increase of \$217,709.33 over the similar expenditures for the preceding year—\$412,367.28. The increase or decrease under the several subheads of appropriation were as follows:

Subhead.	Increase.	Decrease.
Current expenses .....		\$4, 230. 18
Subsistence .....	\$7, 222. 78	
Clothing .....		289. 51
Household .....		10, 965. 73
Hospital .....		13, 275. 89
Transportation .....		3, 271. 56
Repairs .....		3, 571. 25
Farm .....	2, 846. 49	
Construction .....	187, 929. 62	
Permanent improvements .....	46, 791. 15	
Outdoor relief .....		3, 529. 45
Patients at Fort Bayard, N. Mex.....	24, 004. 96	
Patients at United States Insane Asylum .....	8, 547. 85	
Total .....	<u>266, 842. 75</u>	<u>89, 133. 52</u>

It is becoming more and more the practice of all disbursing officers, and it is encouraged by the Treasury officials, to make all payments by check, as being more precise and satisfactory. At many places more distant from a depository or banking facilities than is the

Home, the check system is exclusively used. There does not seem to be any necessity for keeping such large balances of cash on hand. In many cases checks for large amounts were drawn when the amount on hand was large. If it is deemed necessary to pay the employees in cash, the exact amount required for the purpose can be ascertained before payment, and a check be drawn for that amount. It was noted that the treasurer did not pay himself by check for a number of months.

The transactions relating to the permanent and interest funds, as shown by the records of the Treasury Department, were as follows:

Permanent fund:

Balance July 1, 1904.....	\$3,965,905.59
Credit settlements.....	743,792.25
Total.....	4,709,397.84
Drawn for disbursement.....	519,100.00
Balance June 30, 1905.....	4,190,297.84

Interest account:

Balance July 1, 1904.....	29,871.52
Interest on deposits.....	122,270.96
Total.....	152,142.48
Drawn for disbursement.....	121,592.28
Balance June 30, 1905.....	30,550.22

Total amount received from United States Treasury during year:

Permanent fund.....	519,100.00
Interest account.....	121,592.28
Total.....	640,692.28

The following is a statement showing the transactions relating to the permanent fund and the amounts of interest accrued thereon and credited to the Home from October 1, 1894, to June 30, 1905:

	Permanent fund.		Interest account (credited).
	Credit settle- ments.	Drawn.	
Balance October 1, 1894.....	\$2,574,036.79		\$19,815.61
To September 30, 1895.....	188,008.04	\$72,000.00	78,608.05
To September 30, 1896.....	145,700.49	124,618.80	81,408.84
To September 30, 1897.....	134,256.23	107,782.80	81,985.87
To September 30, 1898.....	109,142.18	121,000.00	81,442.16
To September 30, 1899.....	40,676.73	184,000.00	80,565.69
To June 30, 1900.....	228,724.87	254,000.00	58,144.18
To June 30, 1901.....	511,825.41	248,000.00	80,611.68
To June 30, 1902.....	536,045.62	236,000.00	90,430.10
To June 30, 1903.....	743,139.39	254,000.00	100,913.11
To June 30, 1904.....	687,653.49	331,800.00	114,181.88
To June 30, 1905.....	743,792.25	519,100.00	122,270.96
Total.....	6,642,999.44	2,452,301.60	999,996.52
Balance June 30, 1905.....	4,190,297.84		30,550.22
Withdrawn.....	2,452,701.60		969,446.30

This statement shows that the balance in the Treasury to the credit of the permanent fund has increased \$1,616,261.05 between October 1, 1894, and June 30, 1905, or about 62½ per cent; and the increase in the income from the interest on the same has been \$53,668.91, or more

than 55½ per cent. In the meanwhile the average membership has increased from 734 to 921, or about 25½ per cent. This substantial increase in the assets has been secured notwithstanding the very large sums expended for permanent improvements and maintenance of members at Fort Bayard and elsewhere, and the increased cost of maintaining members at the Home, which has risen from \$197.89 to \$296.63. It would seem as if the tax of 12½ cents per month on each enlisted man might, as suggested in my last report, be abolished. The money is apparently not needed by the Home; its income from other sources, as shown above, is more than ample for its needs. The tax is onerous to the soldier, and still more so to the disbursing officer to collect and to the accounting officer to settle and transfer.

Open-market purchases of the following articles were made, viz: Oranges, bananas, strawberries, raspberries, onions, cabbage, spinach, apples, kale, potatoes, string beans, and rhubarb.

The contract prices of the principal articles of food purchased during the last quarter of the year (all of which were bought in Washington) were as follows:

Article.	Price.	Amount bought.
Flour.....per barrel..	\$5.10	a 931
Fresh beef.....per pound..	.0644	b 237,566
Bacon.....do.....	.0821	
Salt pork.....do.....	.091	b 15,231
Fresh fish.....do.....	.11	b 7,100
Codfish.....do.....	.06	b 26,500
Salt mackerel.....do.....	.041	b 935
Coffee.....per barrel..	15.78	a 65
Tea.....per pound..	.1294	a 24,228
Navy beans.....do.....	.37	a 2,294
Lima beans.....do.....	.0333	a 4,410
Ham.....do.....	.0433	a 2,108
Butter.....do.....	.1025	a 23,427
Sirup.....per gallon..	(c) .2225	a 24,275
Cheese.....per pound..	.104	a 7
Sugar, A.....do.....	.0469	b 10,865
Sugar, granulated.....do.....	.0474	b 39,420
		b 4,080

a Barrels.

b Pounds.

c Market price.

The bid of Nelson Morris & Co., dated Chicago, May 10, 1904, for beef hindquarters, was 0.0821 cents per pound, and was accepted. In the bond made out in the office of the treasurer of the Soldiers' Home the price of beef hindquarters is written 9, and for all such beef delivered during the year, 25,405 pounds, that price was paid, making an excess of \$200.70.

This discrepancy was made known to Major Kendall, and the excess of \$200.70 was at once deducted from moneys in his possession due the firm. I am satisfied Major Kendall was not aware of the overpayment in question. The error was made by a former clerk.

Contracts were awarded for such articles as quaker oats, farina, tapioca, vanilla extract, seedless raisins, New Orleans molasses, and rice to one firm, to the exclusion of another whose bids were lower, each being a reputable dealer in the city. The contract for butter was made on the basis of market price; and condensed milk, of which considerable quantities were purchased, was bought without a contract.

The authorized number of employees under the general fund was

450, that being also the average daily number employed, at a total cost of \$120,366.67 for the year.

#### PER CAPITA COST.

The cost per capita for maintenance during the fiscal year 1905 was \$296.63, as against \$321.12 for the previous year—a decrease of \$24.49. The following tabulation shows the average cost of maintenance, by items, for the two years, viz:

Subhead.	1904.	1905.	Increase.	Decrease.
Current expenses.....	\$87.04	\$82.54		\$4.50
Subsistence.....	81.78	89.71	\$7.93	
Clothing.....	26.9275	26.53		.397
Hospital.....	29.7433	15.98		14.353
Farm.....	18.026	20.59	2.56	
Repairs.....	13.235	9.37		3.865
Household.....	64.3725	52.53		11.843
Total.....	321.125	296.63	10.49	24.49

#### PENSION FUND.

The following is a statement of the pension fund:

Amount due pensioners July 1, 1904.....		\$50,398.96
Amount received during the year.....		132,591.22
Total.....		182,990.18
Paid out, currency.....	\$100,396.84	
Paid out, checks.....	32,020.58	
Transferred to general fund.....	2,768.15	
		135,185.57
Due pensioners July 1, 1905.....		47,804.61

The pension fund shows the reduction of the balance on hand in 1903 has continued, so that the balance is now \$47,804.61. While this money is lying idle here the National Home for Volunteers encourages its members to deposit in savings banks similar balances not needed by them, thus relieving the Home of the custody of the money and bringing in to the member an increment on his deposit. Such a custom should be encouraged at this Home.

As many of the pensioners are on the books but a short time, and thus rapidly fill the record book, it would seem that much time and labor would be saved were the accounts of pensioners kept on cards, as are the accounts of soldier deposits kept in the office of the Paymaster-General.

There were 1,034 pensioners on the rolls (exactly the same number as at the preceding inspection) receiving pensions of from \$6 to \$46 a month, only two receiving the latter sum. There were present at the Home 774 of these pensioners. Eighty-four had balances of less than \$100 to their credit; 105 had between \$100 and \$500; 11 had between \$500 and \$1,000, and 8 had more than \$1,000.

There is one clerk, at a salary of \$480 a year, employed on pension business.

## RECAPITULATION.

Balance on hand July 1, 1904		\$104,348.61
Received from Treasury	\$595,692.26	
Received from other sources	8,306.56	
		603,998.82
Received from pension fund		132,591.22
Total		840,938.65
Disbursed:		
General fund	\$630,076.51	
Pension fund	135,185.57	
		765,262.08
Balance June 30, 1905		75,676.57

## MONEY ACCOUNTS.

An examination was made of the books and accounts of the treasurer, Maj. Henry M. Kendall, U. S. Army, retired, from July 1, 1904, to June 30, 1905, including both the general and the pension funds, and they were found to agree in every particular with the above recapitulation. The balance of \$75,676.57 was deposited with the United States Treasurer, Washington, D. C., except the sum of \$211.17, cash on hand.

## CLOTHING.

The following is a statement of the clothing accountability for the year:

Value of clothing on hand July 1, 1904 (new)	\$5,600.33
Purchased during the year	24,686.18
Total	30,286.51
Issued to members during the year	24,167.57
On hand June 30, 1905	6,118.94

No clothing was condemned and sold or destroyed during the year.

## LAUNDRY.

During the year \$13,284.78 was expended for laundry work. Members are permitted to put one piece of each kind in the wash every week, which is considered a very liberal allowance.

## MESSING.

The dining halls have a capacity for seating 710 men, as against 672 reported for the previous year. The food is abundant in variety and quantity, well cooked and well served, and seems to be very satisfactory in every way.

The following was the bill of fare for the week ending June 30, 1905, to wit:

*Saturday, June 24:* Breakfast—Beef stew, bread, butter, and coffee. Dinner—Soup, corned beef, cabbage, potatoes, bread, milk, and coffee. Supper—Rice pudding, raspberries, bread, butter, and tea. Milk consumed, 74.5 gallons.

*Sunday, June 25:* Breakfast—Corned beef hash, rolled oats and milk, bread, butter, and coffee. Dinner—Soup, roast beef and gravy, potatoes, string beans,





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**INSPECTION OF NATIONAL HOME FOR DISABLED  
VOLUNTEER SOLDIERS.**

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## INSPECTION OF THE BRANCHES OF THE NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

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WAR DEPARTMENT,  
OFFICE OF THE INSPECTOR-GENERAL,  
*Washington, November 7, 1905.*

SIR: I have the honor to submit the following report of inspection of the National Home for Disabled Volunteer Soldiers, made pursuant to the act of Congress approved August 18, 1894, and in accordance with letters from The Military Secretary's Office dated June 27, September 30, and October 4, 1905, respectively.

The inspections of the various Branches were made as follows:

Eastern Branch, Togus, Me., July 14 to 18.

Central Branch, Dayton, Ohio, August 1 to 6.

Marion Branch, Marion, Ind., August 7 to 10.

Northwestern Branch, Milwaukee, Wis., August 11 to 16.

Pacific Branch, Santa Monica, Cal., September 2 to 6.

Western Branch, Leavenworth, Kans., September 14 to 17.

Danville Branch, Danville, Ill., September 18 to 21.

Mountain Branch, Johnson City, Tenn., September 23 to 27.

Southern Branch, Hampton, Va., October 4 to 6.

Offices of the president and the general treasurer, New York City, N. Y., October 10 to 12.

The Battle Mountain Sanitarium, at Hot Springs, S. Dak., was not visited, as it is incomplete and no members were present.

I was accompanied on this tour of inspection by Mr. William T. Kent, expert accountant, Inspector-General's Department, whose intimate knowledge of the laws and decisions governing the Home enabled him to make a most comprehensive and satisfactory inspection of the accounts and expenditures and to render much valuable assistance in other matters connected with the inspection.

The general officers for the Home management, who are appointed by the Board of Managers, were, at date of inspection, as follows: Maj. Moses Harris, general treasurer; Col. Thomas T. Knox, inspector-general; Gen. N. M. Curtis, assistant inspector-general; Capt. Charles W. Wadsworth, assistant inspector-general.

In the subjoined appendixes will be found full information as to the local managers and officers pertaining to the several Branches of the Home.

The office of non-commissioned officer inspector, which exists at several of the Branches, should, in my judgment, be abolished. An inspector to be of value must have the prestige and must command the respect which attaches to a commission. Non-commissioned officer inspectors have not that prestige, and their presence is, in my judgment, of very questionable advisability.

The Board of Managers was, at date of inspection, constituted as follows: Gen. Martin T. McMahon, president; Gen. Thomas J. Henderson, first vice-president; Gen. J. Marshall Brown, second vice-president; Gen. Charles M. Anderson, secretary; Capt. Henry E. Palmer, Col. Walter P. Brownlow, John M. Holley, esq., Maj. William Warner, Col. Henry H. Markham, Franklin Murphy, esq., Col. Edwin P. Hammond.

The President of the United States, the Chief Justice, and the Secretary of War are ex officio members of the Board of Managers.

I met the Board of Managers at the Eastern Branch and again at the Western Branch. Every facility was tendered by the Board and by the officers of the several Branches to enable me to observe the workings and management of the Home.

#### GENERAL CONDITION OF THE HOME.

The general condition, administration, and tone of the Home in its several Branches are excellent. The members are well sheltered, clothed, and fed; the sick are properly cared for in well-equipped hospitals; the aged and infirm are given every attention and comfort. Members are granted great freedom, the well-behaved, trustworthy members being almost unrestricted. The discipline exacted is that which is essential to good order and proper administration of the affairs of a large institution of this character. The punishments imposed are of a very mild character and are generally well within the regulations. As a class, the members are well behaved. They obey the regulations, they show that they appreciate the privileges and benefits of the Home, and, generally, they conduct themselves in a manner befitting the desirable and honorable station in which the Government has placed them.

In my judgment too much consideration and leniency is shown the bad characters, of whom a considerable number is found in the several Branches. Any member, unless demented, who fails to appreciate the advantages and privileges of the Home and who, by his persistent bad conduct, shows conclusively that he is incorrigible and unworthy to be a member, should be discharged, and a man once so discharged should not be again admitted except on very conclusive evidence that he has undergone change of heart. The readmission of a man so discharged should be made very difficult. A discharge demanded and received because of refusal to obey orders or to serve punishment duly administered should be regarded as a dishonorable discharge.

The officers of the various branches are, as a rule, energetic, efficient, and well fitted for their positions, and in their relations to the members are kind, considerate, and just. Exceptions noted were brought to the attention of the Board of Managers, or to the local manager of the particular Branch.

Upon the completion of the inspection of each Branch a written statement of defects observed was furnished the governor of the Branch, and a copy of same was sent to the president of the Board of Managers.

Opportunity was given the members to meet the inspector and to bring to his attention anything which they desired. The complaints and grievances were few in number and, for the most part, trifling

in character. Careful inquiry was made in each instance and in cases where complaint was just, steps were taken with a view to having same remedied. In a few instances members and ex-members made complaints of injustice. All were carefully investigated, with the result that in no instance was serious injustice discovered, the grievances or imagined grievances being the result of a disorganized mind or of persistent misconduct.

#### QUALIFICATIONS FOR MEMBERSHIP.

I concur fully in the remarks and recommendations of Col. S. C. Mills, Inspector-General, in his report of inspection last year, viz:

There is a class of men whose excellent service entitles them to consideration, but who are not eligible to either of these Homes. I refer to men who have served in either the Regular Army or Navy less than twenty years, discharged in good physical condition, but who have afterwards become disabled. As they did not serve during a war declared by Congress they are not eligible to the benefits of the National Home for Disabled Volunteer Soldiers.

In view of the hardships, perils, and privations which marked service in our Army during the years of Indian troubles, it would seem proper to extend the benefits of this Home to men of good character and honorable discharge who served for five years and who have since become disabled. Cases are known to almost all officers of men of long service and excellent records who were discharged prior to the completion of twenty years' service, and who are now unable to care for themselves. The number of men affected would not, it is believed, tax the capacity of the Home. The members of civil-war service will diminish rapidly in future, and no better use of this excellent plant is known than to extend its benefits to all honorably discharged soldiers and sailors who need care and support. I would recommend that steps looking to obtaining the necessary legislation be taken.

#### CIVILIAN EMPLOYEES.

The difficulty of finding competent men among the members to perform the various duties connected with the Home, which was noted by the inspector in his report last year, is increasing. Long hours in the kitchen and bakery are especially hard on old men. The employment at each branch of a chief baker and a chief cook for each large mess maintained would, it is believed, be advisable. In the very near future it will become obligatory.

The surgeons of the various Branches were a unit in their belief in the necessity for a competent civilian clerk to keep the records of the hospital. In some instances, being unable to secure members competent for the work, surgeons find it necessary to devote much of their own time to clerical labor. Under existing conditions, and in view of the increasing importance of the hospital service, surgeons have no time to devote to clerical work. It is my belief that each hospital should have a competent civilian clerk.

This again invites attention to the necessity for economy in clerical labor.

As punishments, authorized and inflicted, involve neither fines nor imprisonment, a card record, or some form of record less cumbersome and involving less clerical labor, could be advantageously devised for the docket record.

If voucher forms, including pay rolls, were so spaced as to permit the use of the typewriter in preparing same, duplicate carbon copies could be made without additional labor.

In his report last year Colonel Mills noted the following:

There seems to be much of it (clerical labor) wasted on work not utilized, or that is of no value when done; thus, for instance, the writing after each member's name on the time books and pay rolls the titles of the organization, company, and regiment in which he served during the war. As there are two time books kept in the quartermaster's office, one in the treasurer's office, and duplicate pay rolls made out, the amount of labor involved in writing this designation is apparent. As there are two classes of employees, and it is desirable to distinguish between them, it is suggested that the words "member" or "civilian" after the employee's name would be sufficient.

At most of the Branches the facilities and appliances for handling coal are very poor. In some instances the coal is handled by hand three or four times before being consumed. The amount of labor involved is great.

At some of the Branch Homes the amount of money held by the surgeon is quite large and the accounts numerous, many of them being of a very temporary character, two or three entries completing the record. The advisability of a card or loose-leaf ledger for keeping these accounts is suggested.

#### SERVICE UNIFORM.

Under authority of the Board of Managers the officers of several of the Branches have provided themselves with the army service uniform, which they find most satisfactory. The Home regulations provide that this uniform may be worn by officers when not on duty. Obviously the intent of the regulation was to authorize the wearing of this uniform at all times except upon occasions of ceremony.

#### BANDS.

At several of the Branches it was reported that difficulty was experienced in securing satisfactory men for the band. Generally the quality of the music was good, but at most of the Branches lack of tidiness in dress and in general appearance, on the part of the members of the band, was noticeable.

#### RELIGIOUS SERVICES.

Religious services, both Catholic and Protestant, are held regularly on Sunday, and there are special services at other times. Chaplains are reported as attentive to and interested in their church duties, and zealous in their attention to the sick, the aged, and the infirm. At some of the Branches the chaplain is in charge of the library.

#### THEATERS.

Each of the Branches, except the Mountain Branch, has a theater.

#### STORES.

In many of the Home stores there is no adequate system for accounting for stock. Articles purchased are put in stock, the money received from sales is put into a cash register, and inventories are taken quarterly, except at two Branches, where they are taken more frequently. No record of sales is kept. This system appears to invite loss and it provides no means of detecting same.

## FIRE DEPARTMENT.

The various Branches are generally well organized and fully equipped with apparatus for protection against fire, and fire drills are frequently held, but they are not held under conditions probable to exist in case of fire. Usually for fire drills the alarm or a signal is given from headquarters and notice duly sent to all concerned, a favorable time being selected. Unheralded attempts on my part to have an alarm given by the occupants of buildings were usually unsuccessful. In one instance ten and a half minutes were consumed in getting a stream onto a storehouse from a hydrant which was only a few feet distant. To be of value, fire drill should be held under conditions approaching as nearly as possible those which would actually exist in case there were a fire.

During the year the following fires occurred: One at the Western Branch, loss \$322; one at the Central Branch, loss \$4,364.54; one at the Mountain Branch, loss \$3,000. Total loss, \$7,686.54.

## MEDICAL DEPARTMENT.

In view of the vast and growing importance of the hospital service of the Home, and in view of the lack of uniformity of methods observed in the hospitals of the various Branches, some of which are far from satisfactory, the appointment of a medical director or medical inspector is strongly recommended.

The system of accountability for perishable medical supplies in most of the hospitals is not satisfactory as a guard against leaks or to detect same if they occur.

## STATISTICAL.

The following statistics, gleaned from data supplied by the officers of the various Branches in reply to questions submitted by the inspector, pertain to the Home in its entirety, and relate to the period from July 1, 1904, to June 30, 1905, unless otherwise specially stated.

The total number of officers and members present and absent on June 30, 1905, was 28,070, of whom 19,608 were present and 8,462 were absent—a net gain of 464 over the preceding year. The gains and losses during the year, by Branches, were:

Gains:	
Marion Branch .....	36
Western Branch .....	47
Mountain Branch .....	831
Pacific Branch .....	156
	<hr/> 1,070
Losses:	
Northwestern Branch .....	111
Eastern Branch .....	118
Central Branch .....	14
Danville Branch .....	212
Southern Branch .....	151
	<hr/> 606
Net gain .....	<hr/> 464

The average number present and absent during the year was 28,225 (as against 27,686 for the previous year), of whom 21,092 were present and 7,133 were absent.

Total number cared for, 35,261—an increase of 1,502 over the preceding year.

Average per cent of members absent to the whole number present and absent was 25.5, as against 25.1 for the previous year.

Average age of all members to June 30, 1905, was 65.01 years, as against 64.41 for the previous year; of those who served in the civil and prior wars, 67.36 years; of those who served in the Spanish and subsequent wars, 37.57 years.

The deaths were 50.6 per cent of the first admissions for the year, as against 52.1 for the preceding year.

The total number of arrests was 8,764, total number of members offending being 5,445. There were 2,913 trials for Discipline. drunkenness, and 2,608 for absence without leave. Per cent of members offending to the average number present was 24.70, as compared with 23.39 for the preceding year. The Southern Branch had the highest percentage of offenders, 56.35; and the Pacific Branch had the lowest, 6.07.

Following is a statement of the disposition of the Farm. farm products:

Turned into commissary.....	\$42, 470. 57
Fed to stock.....	13, 127. 49
Sold .....	7, 707. 02
	<u>63, 305. 06</u>
Cost of maintaining—	
Farm proper.....	38, 126. 24
Lawn and flower gardens.....	30, 704. 81
Transportation and teams.....	28, 749. 02
	<u>97, 580. 07</u>

The amount appropriated for farms for the fiscal year was \$106,050.

A new form of cashbook for the general fund has been adopted, which materially reduces the clerical work. It is

General fund. suggested that as the amount remitted under the appropriation for "Clothing" is to be accounted for the same as any other funds remitted and entered into the disbursing officer's total balance, less confusion would arise if the transactions affecting that appropriation were included in the total receipts, disbursements, and balance.

The receipts and expenditures of the general fund for the year, under the several subheads of appropriation, were as follows:

Subhead.	Received.	Expended.
Current expenses.....	\$34, 747. 23	\$321, 086. 25
Subsistence .....	1, 199, 382. 72	1, 162, 560. 15
Clothing .....	34, 058. 60	31, 380. 81
Household.....	576, 332. 28	547, 355. 16
Hospital.....	299, 223. 28	292, 838. 32
Transportation.....	16, 999. 85	14, 736. 01
Construction.....	189, 260. 80	202, 868. 23
Repairs.....	302, 558. 10	320, 484. 21
Farm.....	113, 314. 33	100, 568. 97
Total.....	3, 065, 857. 19	3, 002, 878. 11
Mountain Branch.....	289, 810. 71	271, 018. 24
Total.....	3, 355, 667. 90	3, 273, 896. 35

\* Not divided into subheads.



The cost of improvements was \$219,515.30; of repairs, \$268,842.42. There were 2,344 open-market purchases, amounting to \$68,210.39. On account of the posthumous fund \$28,105.41 was received and \$15,382.11 disbursed.

An average of 58 officers, 332 noncommissioned officers, 4,017 members, and 567 civilians were employed under the general fund. Their pay for the year aggregated \$968,811.38. Their average pay, per diem, was: Officers, \$5.13; noncommissioned officers, 63 cents; members, 31 cents; civilians, \$1.41. A daily average of 261 members worked without compensation.

The per capita cost of maintenance during the fiscal year, exclusive of the cost of construction and of disbursements made by the general treasurer, general in character and pertaining to no particular Branch, was \$149.22, as compared with \$148.56 for the preceding year, an increase of 66 cents. This leaves the Mountain Branch out of the calculation, where the per capita cost of maintenance was reported as \$448.94, construction probably being included. (Considering the Mountain Branch in connection with the others, the average per capita cost for the year was \$182.52.)

Since 1898 there has been a gradual increase in the average per capita cost of maintenance, said cost for the successive years being \$117.84, \$123.97, \$130.91, \$133.36, \$141.57, \$144.06, \$156.38, \$158.22.

The profits of the post funds of the several Branches aggregated \$80,276.10, exclusive of the Eastern Branch, where it was reported that the post fund had been conducted at a loss of \$8,296.38. The greatest profit (\$21,387.23) was made at the Southern Branch, the smallest (\$166.88) at the Northwestern Branch.

An average of 493 men were daily employed in the post-fund business, and their pay for the year aggregated \$101,032.05.

At the close of the fiscal year there was an aggregate of 26,356 pensioners on the rolls of the various Branches (as against 25,671 for the preceding year), drawing pensions ranging in amount from \$6 to \$100 per month. They were paid in the aggregate \$422,483.05. Nine pensioners had balances of more than \$1,000 each to their credit. The pension business of the entire Home was carried on by 23 clerks, whose pay for the year amounted to \$10,880.

There are, altogether, at the Branches, 126 barracks. They were originally intended to accommodate an aggregate of 16,882 men, not including the Eastern Branch, which failed to report the capacity of its 11 barracks. The average air space per man, as reported, was 741.5 cubic feet. The aggregate number of bath tubs in barracks was 427, there being an average of about 46 men to the tub. Urinals were reported as sufficient in number everywhere except at the Western Branch.

The capacity of some of the Branches is overtaxed in caring for the members. Especially is this true of the Western Branch, where approximately 500 men are quartered in basements, while in other Branches, notably Danville and the Mountain Branch, there is ample room. Immediate steps should be taken to correct this.

The steam plants of the various Branches were maintained during the year at an average cost of \$75,091.55.

Five of the Branches make their own ice. The cost of manufacturing, per ton, was as follows: Mountain Branch, 60 cents; Central Branch, 80 cents; Western Branch, \$1; Southern Branch, \$1.20; Pacific Branch, \$2.75. The Danville Branch buys its ice at \$4 per ton. The Eastern Branch puts up its own supply at a cost of 12 cents per ton. The Northwestern gets its supply without cost from its own ponds by giving the contractor what is left. Considerations of economy would suggest the advisability of an ice plant at the Danville Branch.

The average cost of the ration was about 16.65 cents. The highest was at the Mountain Branch, 21.35 cents; the lowest at the Danville Branch, 15.15 cents. The average cost of the hospital ration was about 18.49 cents. The highest, at the Mountain Branch, was 22.46 cents; the lowest, at the Central Branch, 16.5 cents.

Home Regulations (paragraphs 291-297) provide that officers, members of the Home and civilian employees permanently employed and residing at the Branch, may purchase for cash certain articles. Under the present interpretation of these regulations, officers of the Branch are required to make advances to cover purchases of commissary stores. Paragraph 1266, Army Regulations, provides that "sales to officers paid for within the calendar month in which made will be regarded as cash sales." The advisability of a similar interpretation of the Home regulation is suggested.

Food. Food was sufficient in quantity, of excellent quality, and generally well cooked and well served. Exceptions are noted below and in the reports on individual Branches.

At many of the Branches the quality of the tea and coffee served was inferior, due principally to the fact that they were made a long time before being served. In the hospital at one Branch, tea to be served hot for supper was made in the morning.

Attention is again invited to the total want of uniformity in the results obtained in the bakeries of the various Branches; a want of uniformity which exists not only between the results obtained at different Branches for the same period, but which extends to the results obtained at the same Branch for similar successive periods, operating under identical conditions.

The property returns for the Pacific Branch for May, June, and July, 1905, show the following issues of the principal articles used by the bakery and fabrications reported. The average membership is also reported:

## PACIFIC BRANCH.

	May.	June.	July.
Average membership.....	2,157	2,108	2,189
Issued:			
Flour, wheat and graham..... pounds..	80,654	27,298	27,628
Meal, corn..... do.....	300	300	525
Apples, canned..... do.....	1,404	598	1,351
Eggs..... dozens.....	60	105	200
Milk..... gallons.....	12	12	57
Sugar..... pounds.....	500	600	645
Potatoes..... do.....	2,300	1,880	2,190
Lard..... do.....	None	390	380
Salt..... do.....	650	200	875
Fabrications:			
Bread and cake..... do.....	45,671	40,280	40,319
Pies..... number.....	996	444	1,004

## CENTRAL BRANCH.

	February, 1905.	May, 1905.	June, 1905.
Average number present.....	4,775	4,408	4,455
Flour used.....pounds.....	61,848	61,740	61,152
Other material used.....do.....	8,025	7,160	8,453
Bread fabricated.....do.....	86,685	91,694	81,188

Showing that in May, with a daily average of 367 less present than in February, 5,009 pounds more of bread, etc., were fabricated, involving in the larger fabrication in excess of that for the former about 473 pounds of material. As compared with June, it appears that with a daily average in May of 47 members more, 10,500 pounds of bread, etc., less were fabricated at an expenditure of 700 pounds more of material.

The disparity between the average membership, the amount of fabrication and the articles issued for the fabrication month by month, suggests the incorrectness of the returns or waste of material.

The following information relative to results obtained at the cadet mess, West Point, quoted from a letter dated July 15, 1905, from Capt. Thomas Franklin, Subsistence Department, treasurer of the United States Military Academy, in reply to certain questions submitted from this office, is of interest and if diligently studied should be instructive:

First. Quantity of flour, yeast, salt, and other ingredients required to make 100 pounds of white bread.

I can reply to this better by giving you my formula and what I get on an average out of a barrel of flour. Using Pillsbury's Best or Washburn-Crosby Gold Medal flour, I get as follows: Flour, 196 pounds; water, 130 pounds; yeast, Fleischmann's compressed, 2 pounds; salt, 4 pounds; malt extract, 2 pounds; total solids, 334 pounds.

This will average in bread baked 310 pounds, or a gain of 58 per cent. You understand, of course, that if a weaker flour is used less water can be used with it, and consequently less weight of bread obtained; but I find in practice it is always advantageous to buy the strongest flour possible, at a higher price, and get more bread out of it; in other words, the manufacture remaining the same.

Second. Same of Graham bread.

My formula is: Flour, whole wheat, 196 pounds; water, 120 pounds; yeast, Fleischmann's, 2 pounds; salt, 4 pounds; malt extract, 2 pounds; molasses, New Orleans, 5 pounds; total, 329 pounds. Weight of bread after baking, 300 pounds; percentage of gain, 53.

This flour does not take as much water as the best patent white flour, such as Pillsbury's or Gold Medal, for the reason that in any given quantity there is not as much gluten. The bran of the wheat makes up a good part of the bulk of the whole-wheat or Graham flour and does not absorb water with the same readiness as gluten.

Third. Same of biscuit or buns.

*Tea biscuit.*—Flour, 55 pounds; milk, 27 pounds; lard, 6 pounds; baking powder, 2 pounds; salt, 1 pound; total, 91 pounds. Weight when baked, 86 pounds.

*Buns.*—Whole wheat, 38 pounds; water, 24 pounds; yeast, 8 ounces; sugar, 2 pounds; molasses, 2 pounds; malt extract, 8 ounces; salt, 4 ounces; butter, 2 pounds; total, 69 pounds 4 ounces. Weight when baked, 64 pounds.

*French bread.*—Flour, 48 pounds; water, 23 pounds; salt, 8 ounces; malt extract, 8 ounces; yeast, 8 ounces; total, 72 pounds 8 ounces. Weight when baked, 68 pounds.

*Molasses cake.*—Molasses, 20 pounds; milk, 20 pounds; flour, 32 pounds; eggs, 4 pounds; lard, 6 pounds; soda, 1 pound; cinnamon, ginger, allspice, and nutmeg, 1 pound; total, 84 pounds. Weight when baked, 84 pounds.

*Corn muffins.*—Flour, 32 pounds; corn meal, 28 pounds; butter, 4 pounds; eggs, 5 pounds; baking powder, 2 pounds; milk, 57 pounds; total, 128 pounds. Weight when baked, 116 pounds.

*New England buns.*—Flour, 36 pounds; water, 23 pounds; yeast, 8 ounces; salt, 4 ounces; sugar, brown, 3 pounds; sugar, granulated, 1 pound; malt extract, 8 ounces; butter, 3 pounds; eggs, 3 pounds; total, 70 pounds 4 ounces. Weight when baked, 63 pounds.

*Boston brown bread.*—Boston brown bread mixture, 50 pounds; molasses, 15 pounds; milk, 25 pounds; soda, 1 pound; salt, 12 ounces; total, 91 pounds 12 ounces. Weight when baked, 85 pounds.

*Vienna rolls.*—Flour, 35 pounds; water, 25 pounds; yeast, 8 ounces; salt, 4 ounces; sugar, 3 pounds; malt extract, 8 ounces; lard, 4 pounds; total, 68 pounds 4 ounces. Weight when baked, 60 pounds 8 ounces.

*French rolls.*—Flour, 38 pounds; water, 25 pounds; yeast, 8 ounces; salt, 4 ounces; sugar, 3 pounds; malt extract, 8 ounces; butter, 2 pounds 8 ounces; total, 69 pounds 12 ounces. Weight when baked, 63 pounds.

*Cocoanut layer cake.*—Sugar, 15 pounds; butter, 6 pounds; eggs, 12 pounds; flour, 16 pounds; milk, 10 pounds; baking powder, 14 ounces; total, 59 pounds 14 ounces. Weight when baked, 50 pounds.

*Rye bread.*—Rye flour, 35 pounds; white flour, 35 pounds; water, 37 pounds; yeast, 1 pound; salt, 2 pounds; malt extract, 1 pound; total, 111 pounds. Weight when baked, 100 pounds.

*Spice cake.*—Molasses, 14 pounds; milk, 13 pounds; eggs, 2 pounds; lard, 3 pounds; sugar, powdered, 1 pound 8 ounces; soda, 12 ounces; flour, 18 pounds; total, 52 pounds, 4 ounces. Weight when baked, 48 pounds.

*Strawberry shortcake.*—Sugar, 18 pounds; flour, 18 pounds; eggs, 17 pounds; baking powder, 12 ounces; milk, 6 pounds; total, 59 pounds 12 ounces. Weight when baked, 50 pounds 8 ounces.

*Ginger bread.*—Molasses, 22 pounds; water, 17 pounds; cinnamon, 4 ounces; mace, 4 ounces; ginger, 4 ounces; soda, 1 pound; lard, 6 pounds; flour, 32 pounds; eggs, 1 pound 8 ounces; total, 80 pounds 4 ounces. Weight after baking, 75 pounds.

These are typical hot breads served in the mess, and are given because their weights are constant—that is, every time we bake a batch of these goods, using the same formula of course, we get exactly the same results, and they are uniformly of good quality. The tables will enable you to determine what any good baker should get as the result of these formulas. Of course, any change whatsoever will make a difference in the weight of the goods.

Fourth. Same per 100 pies.

Concerning this, I am unable to give you any data for the following reason: Pies vary so much in size and weight, depending upon the ingredients. Some pies are baked thin and others very thick—that is, as regards the quantity of filling—depending entirely upon the nature of the pie. They are so many and so varied that I am unable to give you any accurate data concerning same.

\* \* \* \* \*

Sixth. Cost per pound of bread, including labor and all material used.

I bake bread for 3 cents per pound at the present price of flour, assessing the bread a liberal proportion of the total operating expenses of the bakery.

Seventh. Which gives the better results, flour from winter or spring wheat, as to quality of bread or cost of same?

For my experience, I prefer a strong spring-wheat flour. This, I know, is contrary to the practice of many bakers, who use blends of both spring and winter wheat; but I find that a high-class spring-wheat flour, such as I have been using, gives a uniform product and better bread.

Eighth. How long should bread be baked before it is in proper condition to serve?

Our rule here is to serve no bread that is not twenty-four hours old. The use of malt extract in baking serves to keep the bread damp, and consequently fresh, for a long period. This is due to the hygroscopic action of the malt extract.

Ninth. What is the average daily consumption, in pounds, of bread per 100 cadets?

They eat about 60 pounds of bread per day per 100 cadets, or 0.6 of a pound per cadet. That is, as you understand, of straight bread, both white and whole wheat or graham. In addition to this, at breakfast and at supper they

are served hot bread, biscuit, muffins, rolls, or something of that kind, so that I estimate they eat about 1.1 pounds of bread per day, including hot bread, which is a fair quantity for an American to eat—nothing like what is used in France, Germany, Holland, or Belgium. I find in my experience that Americans are not what might be termed bread eaters, and believe the reason is due to the fact that they do not, as a rule, get good bread.

The several Branch hospitals have an aggregate capacity for 3,036 <sup>The sick, deaths, patients; and in addition there are quarters for 760 etc.</sup> convalescents. One Branch has no convalescent quarters, and another reports such quarters as "unlimited."

The aggregate daily average of sick in hospitals was 2,442; in convalescent quarters, 627; in barracks, 847.

The whole number admitted to the hospitals was 9,149, as compared with 6,623 for the previous year—an increase of 2,526. There was an aggregate of 2,160 deaths at the various Branches (as compared with 1,931 in 1904), of which 1,784 occurred in the hospitals and 376 elsewhere.

The average age of patients at time of death was 68.6 years, as against 68.94 years for 1904.

The average death rate per thousand of the average number of members present and absent was 71.65. The highest death rate, 80.98, was at the Eastern Branch; the lowest, 64.86, was at the Pacific Branch.

On June 30, 1905, there was an aggregate of 23,243 members buried in the various Branch cemeteries, while the average number of living members present at the Homes during the year was 21,092.

Seventy-two members were sent to insane asylums.

There was a daily average of 1,101 hospital employees, of whom 775 were members, 231 civilians, and 95 female nurses. Their pay for the year amounted to \$204,817.43.

A total of 3,446 different drugs and preparations were used in the dispensaries. The aggregate amount expended for drugs was \$43,118.52; for appliances, \$16,731.62.

#### OPEN-MARKET PURCHASES.

It is the defined policy of the Government that purchases shall be made under competition and resort be had to open-market purchases when competition is impracticable, or the amounts involved are inconsiderable. In the application of this principle at the various Branches there appears to have been little uniformity, as shown by the following record of open-market purchases for the year:

Pacific Branch.....	\$3, 158. 06
Southern Branch .....	3, 557. 05
Eastern Branch .....	4, 110. 87
Northwestern Branch .....	5, 263. 16
Mountain Branch .....	6, 317. 64
Central Branch .....	7, 088. 70
Western Branch .....	8, 367. 31
Marion Branch .....	10, 003. 06
Danville Branch .....	20, 344. 54
Total .....	68, 210. 39

## DISBURSEMENTS.

The disbursements and accounts of the Home, including the general, pension, post and special funds, and transfers between different officers were examined carefully. They involved \$12,012,877.80, as compared with \$14,765,974.68 for the preceding year.

The following is a summary:

Balance on hand last inspection .....		\$901, 485. 23
Received by Treasury drafts .....	\$4, 036, 679. 02	
Received by transfers from officers .....	6, 550, 615. 10	
Received from sales and other sources .....	524, 098. 45	
		<hr/> 11, 111, 392. 57
		12, 012, 877. 80
Expended per vouchers .....	8, 093, 288. 89	
Transfers to officers .....	2, 836, 079. 50	
To credit Treasurer United States .....	469, 054. 50	
		<hr/> 11, 399, 022. 89
		613, 854. 91
Balance on hand .....		

The balance was all accounted for, and was on deposit with designated United States depositories, except \$17,000 in bonds and \$4,752.63 cash on hand.

More detailed data concerning the inspection of the several Branch Homes are given in the accompanying appendixes.

Respectfully submitted.

J. L. CHAMBERLAIN,  
*Colonel, Inspector-General.*

The SECRETARY OF WAR.

(Through the Inspector-General of the Army.)

## APPENDIXES.

### No. 1.—Report of Inspection of the Eastern Branch, made July 14 to July 18, 1905.

*Post-office.*—Togus, Me.

*Local manager.*—Gen. John Marshall Brown, of Portland, Me. His term of office expires in 1908.

#### OFFICERS.

At date of inspection the officers were: Governor, Col. S. H. Allen; treasurer, Maj. A. L. Smith; surgeon, Maj. W. G. Elwell; quartermaster, Capt. W. H. Anderson; chaplain, Rev. Henry S. Burrage, D. D., who succeeded Rev. Hudson Sawyer, who died November 11, 1904. Since date of inspection former Governor Allen has died and Col. John T. Richards has been appointed to succeed him.

#### POPULATION.

On June 30, 1905, there were, present and absent, 2,626 officers and members, as compared with 2,744 on June 30, 1904; a loss of 118.

Average number present during the year, 2,065; average number absent, 602; total, 2,667. Highest number present any one day, 2,203, on December 1, 1904; lowest number present any one day, 1,722, on June 30, 1905.

Average temporarily cared for, 2; total number cared for, 3,107.

Average age of members to June 30, 1905, 66.65 years; of those who served in the civil and prior wars, 67.3 years; of those who served in the Spanish and subsequent wars, 36.4 years. Last year these average ages were, respectively, 65.66, 66.29, and 39 years.

#### *Casualties in membership.*

##### Gain:

By first admission .....	267
By appointment .....	1
By readmission .....	81
By transfer from other Homes .....	14
	363

##### Loss:

By transfer to other Homes .....	68
By discharge .....	158
By dishonorable discharge .....	2
By dropped from rolls .....	36
By death .....	217
	481

Net loss ..... 118

## 210 NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

*Return of persons in camp July 15, exclusive of officers and members and civilian employees.*

	Males.	Females.	Children.
Officers' families .....	0	13	8
Members' families .....	0	2	3
Civilian employees' families .....	15	15	13
Total .....	15	30	24

### *Inspection and review July 15, 1905.*

	Present in camp.							Absent.			
	Present at inspection.			Absent from inspection.							Total present and absent.
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.	Total present.	With leave.	Without leave.	
Officers .....	3	-----	3	0	0	2	2	5	0	0	5
Noncommissioned officers .....	40	-----	40	0	0	0	0	40	1	0	41
Members .....	547	428	975	326	421	7	754	1,729	839	15	854
Temporary .....	2	-----	2	0	0	0	0	2	0	0	2
Band .....	24	-----	24	0	0	0	0	24	0	0	24
Total .....	616	428	1,044	326	421	9	756	1,800	840	15	855
											2,655

Clothing worn by many members not clean, and condition of camp as to cleanliness and police not good.

Eighteen members had been admitted since June 30 and 10 discharged, a net gain of 8. There were 336 beds vacant in barracks and 44 in the hospital.

### DISCIPLINE.

The principal offenses were drunkenness, absence without leave, and bringing intoxicating liquors within the Home limits. Total number of arrests, 642; trials for drunkenness, 248; for absence without leave, 221. Total number of members offending, 374, or about 18 per cent of the average number present. For the preceding year this percentage was 13. One member was in confinement at date of inspection.

### LIBRARY.

At the close of the fiscal year the library contained 10,242 volumes. During the year 172 volumes had been added and 25 were condemned and destroyed. There are 100 papers and 33 periodicals subscribed for and 96 papers and no periodicals furnished free. Number of books read or circulated during the year, 23,844. At date of inspection the library building was being thoroughly overhauled and remodeled.

### BAND.

The band is composed of 24 men, of whom 3 are members of the Home and 21 are civilians. Its total cost for the year, including subsistence and other allowances of civilians, was \$10,552.72. Average monthly compensation of leader, \$100; of members, \$10.83; of civilians, \$29.79.



## HOTEL, STORE, AND BEER HALL.

The hotel is new. It is well equipped and well managed. The beer hall and store are well located and apparently well managed.

## THEATER.

Members of the Home are admitted to all performances free of cost; others pay 10 cents, and \$1,427.60 was received from this source. Expenses for performances, \$7,280.

## RELIGIOUS SERVICES.

Catholic service is conducted by a nonresident priest. The average attendance at regular services, both Catholic and Protestant, is from 200 to 400, or about 14.5 per cent of the average number of members present.

## FARM.

Five hundred acres are under cultivation, 480 as farm and 20 as vegetable garden.

There are 57 cows. Milk was produced at a cost of 10.08 cents per gallon; the cost per gallon, by the quantity, in the nearest town being 20 cents.

Farm stock to the value of \$12,925 was on hand June 30, 1905.

Fifty farm hands are employed—29 members and 3 civilians on the farm and vegetable garden, 8 members and 1 civilian in the flower garden, and 9 members in teaming.

*Value of farm and vegetable products for the year.*

Hay .....	\$2,812.00	Carrots .....	\$300.00
Hungarian .....	13.50	Milk .....	8,485.00
Millet .....	27.00	Manure .....	540.00
Corn fodder .....	62.50		
Beets .....	240.00	Total .....	12,480.00

There are 8 carriages, sleighs, pungs, etc., and 36 wagons, carts, sleds, etc., used on the farm or for sprinkling streets, cleaning cess-pools, and for transportation purposes. There are 16 horses and a herd of Holsteins, a remarkably fine one, consisting of 57 cows, 19 calves, 2 heifers, 10 yearlings, and 3 bulls.

The forage allowance for each horse is 12 pounds of grain and 14 pounds of hay daily, if needed, and 100 pounds of straw per month for bedding. Horses were overfed. Wheel transportation in need of repairs.

## Value of farm and vegetable products:

Turned into commissary .....	\$8,701.50
Fed to stock .....	3,455.52
Sold .....	1,305.52
Total .....	13,462.54

## Cost of maintaining:

Farm proper .....	8,472.53
Lawn and flower garden .....	2,841.62
Transportation and teams .....	3,611.82
Total .....	14,925.97

The amount appropriated for farm was \$14,150.

## TREASURER.

## GENERAL FUND.

The receipts of the general fund were: By transfer, \$340,950; from sales and other sources, \$13,849.30; total, \$354,799.30. The expenditures amounted to \$347,430.61, of which \$252,117.75 was disbursed by check and \$95,312.86 in currency.

On account of the posthumous fund \$3,378.69 was received and \$2,253.59 disbursed.

The improvements made consist of the extension and alteration of the hospital, a new stable, new water mains, and additional hydrants. They cost \$40,657.55. The old quartermaster storehouse was changed to shops for upholsterer, shoemaker, printer, and electrician. The cost of repairs (not construction) was \$26,471.91.

Two hundred and twenty-nine open-market purchases, amounting to \$4,110.87, were made. These purchases were of cabbage, tomatoes, string beans, green corn, cucumbers, peas, new potatoes, celery, cranberries, sweet potatoes, squash, greens (kale, spinach, beet tops, dandelion), grapes, strawberries, apples, bananas, and oranges.

The following were the contract prices of the principal articles of food for the last quarter of the fiscal year:

Article.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds.....	84,280	\$0.031684	Auburn, Me.
Fresh beef.....do.....	36,260	.0875	Gardiner, Me.
Corned beef.....do.....	26,000	.0448	Do.
Bacon.....do.....	8,153	.0945	Augusta, Me.
Salt pork.....do.....	4,400	.06	Gardiner, Me.
Fresh fish.....do.....	12,838	.0825	Boston, Mass.
Codfish.....do.....	5,480	.0498	Augusta, Me.
Salt mackerel.....do.....	12,000	.0825	Do.
Coffee.....do.....	14,500	.1025	Boston, Mass.
Tea.....do.....	600	.205	Do.
Potatoes.....bushels.....	132,000	.48	Unity, Me.
Navy beans.....pounds.....	10,508	.0325	Portland, Me.
Lima beans.....do.....	1,233	.054	New York, N. Y.
Ham.....do.....	17,082	.0999	Augusta, Me.
Oleomargarine.....do.....	15,960	.12	Chicago, Ill.
Sirup.....gallons.....	300	.29	Boston, Mass.
Cheese.....pounds.....	2,117	.1375	Do.
Sugar, A.....do.....	20,777	.05835	New York, N. Y.
Sugar, granulated.....do.....	2,567	.06335	Do.

Under the general fund there are authorized as employees 6 officers, 40 noncommissioned officers, 450 members, and 52 civilians, a total of 548; while there are actually employed a daily average of 5 officers, 40 noncommissioned officers, 403 members, and 44 civilians, a total of 492. Their average daily pay was: Officers, \$5.42; noncommissioned officers, 54 cents; members, 37 cents; civilians, \$1.55. During the year these employees were paid the aggregate sum of \$95,312.86. No members worked without pay.

The average cost of maintenance per capita was \$151.24, as against \$144.83 for the preceding year, an increase of \$6.41.

## POST FUND.

The employees authorized are 48 members and 41 civilians; while the average daily number employed was 38 members and 36 civilians. Their cost for the year aggregated \$16,178.

The cash on hand on July 1, 1905, was \$14,308.19, as compared with \$26,004.16 at the beginning of the year. The stock and fixtures on hand at the close of the year were valued at \$703.04 more than at the beginning of the year.

A net loss of \$8,296.38 for the year was reported under this fund, due mainly to loss on buildings. The loss is apparent rather than real.

PENSION FUND.

The number of pensioners on the rolls on June 30, 1905, was 2,505, all of whom were reported as present at the home on that date.

Amount due pensioners July 1, 1904.....	\$7, 532. 48
Amount received during the year.....	326, 657. 23
Total .....	334, 189. 71
Amount disbursed, currency.....	\$252, 624. 16
Amount disbursed by check.....	75, 471. 04
	<u>328, 095. 20</u>
Balance due pensioners July 1, 1905.....	6, 094. 51

The pensioners were receiving sums ranging from \$6 to \$42 per month, only 2 receiving the latter sum. Thirty-six of them had balances to their credit of sums less than \$100; 10 had between \$100 and \$500. Two clerks are employed on pension business at salaries of \$300 and \$420 per year, respectively.

RECAPITULATION.

Total balance July 1, 1904.....	\$59, 683. 18
Received from general treasurer.....	\$340, 950. 00
Received from other sources.....	13, 849. 30
	<u>354, 799. 30</u>
Received from pension fund.....	409, 892. 98
Total .....	<u>824, 375. 34</u>
Disbursed, general fund.....	347, 430. 61
Transferred, general fund.....	17, 438. 03
	<u>364, 868. 64</u>
Disbursed, post fund.....	94, 931. 60
Disbursed, pension fund.....	328, 095. 20
Balance, June 30, 1905.....	<u>36, 479. 90</u>
Total .....	824, 375. 34

QUARTERMASTER AND COMMISSARY STORES.

Value of quartermaster stores and current supplies on hand July 1, 1904.....	\$195, 384. 82
Received from general depot.....	20, 737. 55
Received by purchase.....	3, 111. 44
Received by transfer.....	252. 03
Total .....	<u>219, 485. 84</u>
Dropped by board of survey.....	\$2, 102. 17
Dropped by inspector.....	21, 194. 78
	<u>23, 296. 95</u>
Balance on hand July 1, 1905.....	196, 188. 89

The following classes of property, in the amounts named, were received from the depot, viz:

Current expenses	\$1,200.00
Subsistence	762.03
Household	836.17
Hospital	582.41
Clothing	17,841.08

Following is a statement of the clothing accountability as reported by the quartermaster:

On hand July 1, 1904:	
In stock and awaiting condemnation	\$10,383.61
Issued to members	57,014.64
	<hr/>
	67,398.25
Received from depot	17,841.08
Received from other sources	252.03
	<hr/>
	85,491.36
Inspected, condemned, and expended	20,667.29
	<hr/>
On hand July 1, 1905:	
In stock and awaiting condemnation	9,844.01
Issued to members	54,823.29
	<hr/>
	64,672.30

There is a discrepancy of \$151.77 in this account.

Fourteen men are employed in the laundry, which was run at a cost of \$1,745.58 for labor and \$342.72 for material. There is no limit to the amount of laundry work allowed to each member.

On the reservation, in close proximity to the camp, there is much low, wet land, stagnant water, underbrush, and high grass. The courses of the streams are not straight, and several drains or ditches are uncovered. One of the results of these conditions is great numbers of mosquitoes.

The average dormitory air space per man in barracks is 815 cubic feet.

#### SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$2,912.12. Subsistence stores which cost \$410.49 were condemned during the year, but none of these were sold.

Fourteen men were employed in the kitchen and 68 in the dining room. The dining hall seats 1,162 men.

The average cost of a ration per day, including vegetables, fruit, and milk produced on the home grounds, was 16.73 cents. Last year it was 16.61 cents.

The average cost of a hospital ration per man per day, including extra diet, was 17.35 cents. The year before it was 17.06 cents.

Garbage was produced each month to the amount of 106 barrels of about 250 pounds each, and the receipts from its sale were \$574.20.

It was reported that in the fabrication of 486,219 pounds of bread and 27,504 pies the following articles were used:

Apples, evaporated.....pounds--	2, 965	Mince-meat .....pounds--	9, 614
Cinnamon .....do.....	30	Molasses .....gallons--	707
Eggs .....dozens--	1, 351	Oleomargarine .....pounds--	540
Flour, graham.....pounds--	7, 818	Powder, baking .....do.....	840
Flour, rye.....do.....	1, 758	Salt .....do.....	4, 950
Flour, wheat.....do.....	344, 364	Soda, bicarbonate.....do.....	429
Ginger .....do.....	65	Sugar, A .....do.....	8, 125
Lard .....do.....	7, 705	Sugar, G .....do.....	150
Meal, corn.....do.....	11, 015	Yeast .....do.....	1, 854

It was also reported that 54,799 pounds of green coffee were used in producing 47,455 pounds of roasted coffee.

Management of commissary department does not secure against "leaks," nor does it provide means of detecting same.

Noncommissioned officers' mess, as conducted, with its large membership and run as a part of the main mess, is objectionable and breeds discontent.

#### SHOPS.

The following is a statement of the value of the property, supplies, or stores issued to each shop and the amount paid for services in each:

	Material.	Services.	Total.
Bakery.....	\$19,213.23	\$1,378.00	\$20,591.23
Harness shop.....	22.56	171.00	193.56
Horseshoeing shop.....	89.74	180.00	219.74
Printing office.....	77.88	461.12	539.00
Repair shop.....	4,734.17	74.90	4,809.07
Shoe shop.....	888.85	485.00	1,373.85
Tailor shop.....	99.67	1,653.00	1,752.67
Upholsterer's shop.....	61.67	139.18	200.85
Total.....	25,135.77	4,542.18	29,677.95

#### ENGINEER DEPARTMENT.

Water is supplied at an annual cost of \$7,500 by contract with the Augusta water district. As to drainage and sewerage, solids are collected in cesspools, and liquids are carried off by gravity through a 12-inch sewer discharging into Togus Creek 1 mile from camp. The ground upon which most of the camp is located is low and swampy, and drainage is bad. The establishment of a modern septic plant is strongly recommended.

The original cost of the steam plant was \$12,000; cost of maintenance during the year, \$36,598.92.

Light is furnished on contract by the Kennebec Heat and Light Company, of Augusta, at an annual cost of \$10,797.48. There are 9 arc lights and 2,676 incandescent lights.

New coal sheds, suitably located and equipped with modern appliances for handling coal, are needed.

Ice is harvested from a pond on the reservation. Seven hundred and ninety-nine tons were harvested last year, at a cost of 12 cents per ton. The preceding year the cost of harvesting was 10 cents per ton.

## FIRE DEPARTMENT.

Organization and protection against fire appeared adequate, except that additional hydrants are needed in the vicinity of the barns.

No fires occurred during the past fiscal year.

## MEDICAL DEPARTMENT.

The sick on June 30, 1905, were: In hospital, 319; in convalescent companies, 116; barracks or sick call, 417.

The capacity of the hospital for patients is 361; the quarters for convalescents are not limited. Total number admitted to hospital during the year, 788; daily average of patients in hospital, 324.

The principal diseases and percentage of each to the whole number of cases were: Chronic valvular and other organic lesions of the heart, 19.7; chronic pulmonary affection (bronchitis and pulmonary tuberculosis), 7.1; chronic degenerative diseases of the nervous system, including insane and epileptic, 5.7; alcoholism, 6.4; chronic nephritis, 4; arterio-sclerosis, 3.8.

No members were sent to insane asylums.

Total deaths, 216—171 in hospital and 45 elsewhere. Two hundred and fifteen died from natural causes, and 1 from other cause.

The average age at death was 69.68 years, as against 68.81 for the preceding year.

The death rate per thousand of the average present and absent was 80.98.

One hundred and twelve members were buried in the Home cemetery. The total number interred there is 2,094. The capacity of the old cemetery is 1,800 graves; of the new cemetery, 924 graves.

Average number of employees: Members, 80; civilians, 29; female nurses, 8. Their cost for the year was \$22,820.80.

Amount expended for drugs, \$5,154.08; for appliances, \$263.34. Number of drugs, preparations, etc., used in the dispensary, 274.

The open-air sanitarium for tuberculosis patients constructed last year is giving great satisfaction. The patients expressed themselves as highly pleased.

Four new toilet rooms are needed in main front part of hospital, with complete overhauling of plumbing.

The surgeon, Major Elwell, is an able, energetic officer, with progressive, practical ideas. The affairs of his department were in a highly satisfactory condition.

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**No. 2.—Report of Inspection of the Central Branch, made August 1 to 6, 1905.**

*Post-office.*—The National Military Home, Ohio.

*Local manager.*—Gen. Charles M. Anderson, of Greenville, Ohio. His term of office expires in 1906.

## OFFICERS.

At date of inspection the officers were: Governor, Col. J. B. Thomas; treasurer, Maj. A. J. Clark; surgeon, Maj. D. C. Huffman; quartermaster, Capt. W. H. Ortt; commissary of subsistence and superintendent of the post fund, Col. John W. Byron; assistant

adjutant-general, Maj. Carl Berlin; inspector, Maj. Alvan S. Galbraith; chaplains, Rev. H. A. McDonald, Rev. B. F. Kuhlman, D. D. There had been no changes in the officers since the previous inspection.

POPULATION.

On June 30, 1905, there were present and absent 5,596 officers and members, as compared with 5,610 on June 30, 1904, a loss of 14.

Average present during the year, 4,569; average absent, 1,072; total, 5,641. Highest number present any one day, 4,812, on March 4, 1905. Lowest number present any one day, 4,293, on July 5, 1904.

Average number temporarily cared for, 31; total number cared for, 6,862.

Average age of members to June 30, 1905, 66.01 years; of those who served in the civil and prior wars, 66.47 years; of those who served in the Spanish and subsequent wars, 38.06 years. For the preceding year these averages were, respectively, 65.94, 66.27, and 36.91 years.

*Casualties in membership.*

Gain:	
By first admission.....	702
By readmission .....	414
By transfer from other Homes.....	136
	<hr/> 1, 252
Loss:	
By transfer to other Homes.....	196
By discharge .....	402
By dishonorable discharge .....	51
By dropped from rolls.....	160
By death .....	448
By transfer to Government Insane Asylum.....	9
	<hr/> 1, 266
Net loss.....	<hr/> 14

*Return of persons in camp August 3, exclusive of officers, members, and employees.*

	Males.	Females.	Chil- dren.
Officers' families.....	0	13	0
Members' families .....	0	0	0
Civilian employees' families.....	28	21	1
Total.....	<hr/> 28	<hr/> 34	<hr/> 1

*Inspection and review August 3, 1905.*

	Present in camp.							Absent.			Total present and ab- sent.	
	Present at inspec- tion.			Absent from inspection.				Total present.	With leave.	Without leave.		Total.
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.					
Officers.....	8	-----	8	0	0	1	1	9	0	0	0	9
Noncommissioned officers.....	72	-----	72	0	0	0	0	72	1	0	1	73
Members.....	1,378	-----	1,378	706	951	1,169	2,886	4,264	1,205	96	1,241	5,505
Temporary.....	25	-----	25	0	0	0	0	25	0	0	0	25
Band.....	26	-----	26	0	0	0	0	26	0	0	0	26
Total.....	1,509	-----	1,509	706	951	1,170	2,887	4,396	1,206	96	1,242	5,698

Since June 30, 123 members had been admitted and 132 discharged, a net loss of 9. There were 273 vacant beds in barracks and 50 in hospital. No men slept on the floor during the year.

#### DISCIPLINE.

The principal offenses committed were intemperance and absence without leave. Total number of arrests, 2,605; trials for drunkenness, 676; for absence without leave, 906. Total number of members offending, 1,454, or about 32 per cent of the average number present, the same percentage as for the preceding year. At date of the inspection there were 101 members under restriction, 78 in the annex, 14 in quarantine, and 9 in the guardhouse.

#### LIBRARY.

On June 30, 1905, the library contained 24,524 volumes as against 24,043 at the beginning of the year. There are 71 newspapers and 28 periodicals subscribed for, and 154 newspapers and 19 periodicals furnished free. Five hundred and ninety-eight volumes were added to the library, and 117 volumes were disposed of by condemnation. Number of books read or circulated, 36,293.

#### BAND.

The band is composed of 29 men, 2 members of the Home and 27 civilians. Its total cost for the year, including the subsistence and other allowances of the civilian musicians, was \$15,814.55. Average monthly compensation of leader, \$125; of members, \$30; of civilians, \$34.56. Members of band tidy in appearance, and quality of music good.

#### HOTEL, STORE, AND BEER HALL.

Different brands of beer are sold. A lunch counter providing cigars and sandwiches, and an outside pavilion with tables and chairs, are desirable adjuncts. At date of inspection the hotel was not open. It was undergoing repairs rendered necessary by a fire. Store well stocked and stores well arranged.

#### THEATER.

Members are admitted to all performances free of charge. Admission to others is as follows: Residents of the Home (officers' families and civilian employees), 10 cents; families of members living near the Home, 25 cents down stairs, 15 cents gallery; other nonresidents, 50 and 25 cents; and the sum of \$448.40 was received from this source. Cost of performances, \$9,278.

#### RELIGIOUS SERVICES.

There are two chapels with total seating capacity of about 1,000. The average attendance at regular services was 850, or about 17.9 per cent of the average number of members present at the Home.



## FARM.

Number of acres under cultivation, 299—150 as meadow, 110 as pasture, and 39 as plowed land. There is no garden for vegetables.

Thirty-two cows yielded 32,211 gallons of milk at a cost of 6.23 cents per gallon, the cost per gallon, by the quantity, in the nearest town being 17 cents.

Value of farm stock on hand June 30, 1905, \$6,320.

Ninety farm hands were employed—17 members and 1 civilian on the farm, 42 members and 2 civilians in the flower garden, and 28 civilians in teaming, etc.

*Value of farm products for the year.*

Oats -----	\$117.44	Chickens -----	\$19.35
Milk -----	5,475.87	Deer -----	90.45
Eggs -----	10.20	Flowers -----	214.00
Corn -----	397.86	Horses -----	235.00
Fodder -----	290.40	Mule -----	20.00
Hay -----	1,173.76	Teaming -----	186.80
Rye -----	1.74		
Calves -----	106.50	Total -----	8,339.37

There were on hand 5 carriages and buggies, 24 wagons, 3 ambulances, 4 carts, 1 sprinkler, and 30 horses, which were used for teaming and road work.

The forage ration of a horse is 14 pounds of hay and 12 pounds of oats, barley, or corn. To this may be added 50 pounds of bran per month for each horse, and 100 pounds of straw (or its equivalent in other suitable material) for bedding for each horse for the same period.

Altogether there are 41 cows, 3 calves, and 2 bulls.

Stables are not properly drained.

## Value of farm products:

Turned into commissary -----	\$5,486.07
Fed to stock -----	1,933.11
Sold -----	919.39

Total ----- 8,338.57

## Cost of maintaining:

Farm proper -----	4,637.45
Transportation and teams -----	6,254.78
Lawn and flower garden -----	7,848.44

Total ----- 18,740.67

The amount appropriated for farm was \$18,000.

## TREASURER.

## GENERAL FUND.

The receipts of the general fund were: From transfers, \$570,128.54; from sales and other sources, \$20,513.46; total, \$590,642. The expenditures aggregated \$576,429.54, all of which was expended by check.

On account of the posthumous fund \$7,079.90 was received and \$4,910.92 disbursed.

The only improvement (not repairs) made was a dairy barn, which cost \$8,973.85. A number of small buildings and sheds about the old dairy site were torn down or sold and moved away. The old slaughterhouse was also torn down.

The cost of repairs (not construction) amounted to \$55,047.34.

Four hundred and seventy-nine open-market purchases were made, at an aggregate cost of \$7,088.70. These consisted of general commissary supplies, vegetables, fruits, eggs and chickens, oysters, plants and seeds, repairs, drugs, and miscellaneous articles.

The following were the contract prices of the principal articles of food for the last quarter of the fiscal year, viz:

Articles.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds..	190,120	\$0.02353	Blanchester, Ohio.
Fresh beef.....do...	151,692	.061	Chicago, Ill.
Corned beef.....do...	34,600	.0445	Do.
Bacon.....do...	15,000	.09125	Dayton, Ohio.
Salt pork.....do...	25,000	.0675	Do.
Fresh fish.....do...	15,679	.0859	Detroit, Mich.
Codfish.....do...	2,000	.0548	New York, N. Y.
Salt mackerel.....do...	18,000	.079	Gloucester, Mass.
Coffee.....do...	25,000	.112	Boston, Mass.
Tea.....do...	2,600	.2425	Cleveland, Ohio.
Potatoes.....bushels.	5,300	.49	Dayton, Ohio.
Navy beans.....pounds.	10,300	.03	Chicago, Ill.
Lima beans.....do...	3,000	.051	Do.
Ham.....do...	29,884	.0964	Do.
Oleomargarine.....do...	33,000	.101	Do.
Sirup.....gallons..	1,050	.1975	Do.
Cheese.....pounds..	6,007	.125	Do.
Sugar, A.....do...	61,307	.0525	Dayton, Ohio.
Sugar, granulated.....do...	2,000	.0594	Do.

Under the general fund there are authorized as employees 9 officers, 79 noncommissioned officers, 920 members, and 78 civilians; total, 1,086; while the average number daily employed was 9 officers, 69 non-commissioned officers, 832 members, and 75 civilians; total, 985. Their average daily pay was: Officers, \$5.47; noncommissioned officers, 56.7 cents; members, 37.28 cents; civilians, \$1.75. They were paid the aggregate amount of \$190,786.52. About 60 men on an average worked daily without pay, being principally employed in kitchen, camp, and police work.

The average cost of maintenance per capita was \$130.83, as against \$139.89 for the preceding year, a decrease of \$9.06.

#### POST FUND.

The employees authorized are 90 members and 67 civilians, while the average daily number employed was 74 members and 50 civilians. Their cost aggregated \$30,428.83.

The balance on hand on July 1, 1905, was \$59,674.65, as compared with \$58,014.06 at the beginning of the year. The stock and fixtures on hand at the close of the year were valued at \$87.85 less than at the beginning of the year. The net profit of the post exchange was \$20,028.02.

# NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. 221

## PENSION FUND.

Number of pensioners on rolls June 30, 1905, 5,277, of whom there were present at the Home about 4,000.

Amount due pensioners July 1, 1904.....	\$64,487.45
Amount received during the year.....	730,565.16
Total .....	795,052.61
Amount disbursed, currency.....	\$538,671.70
Amount disbursed by check.....	195,931.46
	<u>734,603.22</u>
Balance due pensioners July 1, 1905.....	60,449.39

The pensioners were receiving sums ranging from \$6 to \$72 per month, only 1 receiving the latter sum. Five hundred and nineteen of them had sums of less than \$100 to their credit, 142 had between \$100 and \$500, 11 had between \$500 and \$1,000, and 5 had more than \$1,000. Four clerks are employed upon pension business, at salaries aggregating \$1,980.

## RECAPITULATION.

Total balance July 1, 1904.....	\$118,833.70
Received from general treasurer.....	\$570,732.43
Received from other sources.....	20,513.46
	<u>591,245.89</u>
Received from pension fund.....	730,565.16
Total .....	<u>1,440,644.75</u>
Disbursed, general fund.....	\$577,033.43
Transferred, general fund.....	17,157.95
	<u>594,191.38</u>
Disbursed, pension fund.....	734,603.22
Balance June 30, 1905.....	111,850.15
Total .....	<u>1,440,644.75</u>

## QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....	\$21,659.32
Received from general depot.....	54,844.95
Received by purchase.....	359,472.72
Received by transfer.....	2,027.97
Total.....	<u>438,004.96</u>
Dropped by board of survey.....	6,207.48
Dropped by inspector.....	78,683.90
	<u>84,891.38</u>

Balance on hand July 1, 1905, \$29,824.43.

The following classes of property, in the amounts named, were received from the depot, viz:

Current expenses.....	\$1,403.61
Subsistence .....	2,506.23
Household .....	2,617.36
Hospital .....	1,055.26
Clothing .....	47,262.49
Total .....	<u>54,844.95</u>

## 222 NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

Amount received from sales of quartermaster's property, \$11,832.96.  
Following is a statement of the clothing accountability:

On hand July 1, 1904:

In stock and awaiting condemnation-----	\$20, 268. 22
Issued to members-----	106, 694. 98
	<hr/>
	126, 963. 20
Received from depot-----	47, 262. 49
Received from other sources-----	2, 027. 97
	<hr/>
	176, 253. 66
Inspected, condemned, and expended-----	56, 371. 62
	<hr/>

On hand July 1, 1905:

In stock and awaiting condemnation-----	70, 212. 22
Issued to members-----	106, 041. 44
	<hr/>
	176, 253. 66

Forty-six men are employed in the laundry, which was conducted at an expense of \$4,975.18 for labor, and \$968.78 for materials. No limit is placed on the amount of Home clothing in the possession of the members which may be sent to the laundry.

### SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$3,245.58. Such as were sold after condemnation are included in the figures for the quartermaster's department, given above.

The dining hall seats 2,358 men. An average of 76 men were employed in the kitchen and 190 in the dining hall.

The average cost of a ration per day, including milk and fruit produced on the Home grounds, was 15.27 cents. For the preceding year it was 15.13 cents.

The average cost of a hospital ration per day, including extra diet, was 16.50 cents, as against 16.38 cents for the preceding year.

The estimated weight of garbage produced per month was 170,000 pounds. It is sold on annual contract, and the receipts from this source for the year were \$860.50. Location of slop house objectionable and condition of same offensive. Suitable slop hoppers of modern type are needed.

It was reported that in the fabrication of 842,826 pounds of wheat bread, 29,465 pounds of corn bread, 65,981 pounds of cakes, 64,429 pounds of cookies, and 11,173 pies the following articles were used:

Apples, green-----pounds--	30, 600	Milk-----gallons--	2, 180
Apples, evaporated-----do----	12, 600	Mince-meat-----pounds--	2, 500
Ammonia, bicarbonate.do-----	138	Molasses-----gallons--	547
Cinnamon-----do-----	71	Powder, baking-----pounds--	215
Corn meal-----do-----	7, 400	Rhubarb-----do-----	16, 000
Cottolene-----do-----	21, 726	Salt-----do-----	6, 625
Eggs-----dozens--	1, 840	Soda, bicarbonate-----do----	148
Flour-----pounds--	742, 644	Sugar, A-----do-----	49, 423
Ginger-----do-----	48	Yeast-----do-----	3, 625
Lard-----do-----	7, 951		

*Transactions in shops.*

	Supplies.	Services.	Total.
Bakery .....	\$27,736.96	\$2,208.10	\$29,945.06
Harness shop .....	47.48	180.10	227.58
Horseshoeing shop .....	132.76	382.50	515.26
Printing office .....	244.33	616.00	860.33
Repair shop .....	14,181.38	17,923.29	32,104.67
Shoe shop .....	1,454.89	1,689.21	3,144.10
Tailor shop .....	202.07	2,130.26	2,332.33
Upholsterer's shop .....	155.96	136.65	292.61
Total .....	44,155.83	25,216.11	69,371.94

## ENGINEER DEPARTMENT.

Drainage and sewerage is by a gravity system, in good condition.

The steam plant is used for furnishing steam for heating buildings, for cooking, and for power in laundry, machine shops, etc., pump houses, electric and gas plants, and ice machinery. Its original cost was about \$123,000, and it was operated during the past fiscal year at a cost of \$111,717.82.

The cost of maintenance of lighting plant was: Electric, \$10,434.30; gas, \$7,797.52. There are 46 arc lights, 5,300 incandescent lights, and 6,000 gas lights.

Much time and labor would be saved in handling coal if the railroad track were extended to the laundry boiler-house and if trestles were provided at all three boiler-houses.

There are 9 cold-storage rooms. Eight hundred and twenty-seven tons of ice manufactured, at a cost of about 80 cents per ton.

## FIRE DEPARTMENT.

The steam fire engine appeared to be of little value; yet without this, the protection against fire seems adequate. The fire organization consists of an active and an auxiliary force. The active force is composed of 50 men—civilians and members—employed in the engineer department. The auxiliary force consists of 4 men on each floor in barracks and hospital and 2 men in each of the shops, stables, and dairy. These are all governed and drilled by a system of fire regulations.

The only fire during the year was on May 3, when the kitchen wing of the hotel was gutted by fire and much damage was done to the main building by water. The insurance companies settled for \$4,364.54, which was their estimate of the loss. Cause of fire unknown.

## MEDICAL DEPARTMENT.

The sick on June 30, 1905, were: In hospital, 442; in convalescent companies, 167; barracks or sick call, 137.

The hospital has a capacity for 650 patients, and there are quarters for 175 convalescents. Total number admitted to hospital, 2,506. Daily average of patients, 447 in hospital; 182 in convalescent quarters; 140 at sick call.

The principal diseases and percentage of each to the whole number of cases were: Alcoholism, 0.045; influenza, 0.015; rheumatism, 0.036; gastritis, 0.03; constipation, 0.016; enteritis, 0.024; cardiac hypertrophy and dilatation, 0.021; bronchitis, 0.021; nephritis, 0.012.

Total deaths during the year, 448—335 in hospital and 113 elsewhere. Of these, 446 died from natural causes.

Average age at death, 70.25 years, as against 69.53 for the preceding year.

The death rate per thousand of the average present and absent was 79.42.

Three hundred and thirteen members were buried in the Home cemetery. The total number interred is 8,239. The cemetery can be enlarged to any desired extent.

Nine members were sent to insane asylums.

Average number of employees: Members, 150; civilians, 37; female nurses, 15. Their cost aggregated \$35,768.29.

Amount expended for drugs, \$9,129.64; for appliances, \$879.41; number of drugs, preparations, etc., used in the dispensary, 267.

Conditions as to cleanliness of certain portions of hospital not up to standard.

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### No. 3.—Report of Inspection of the Marion Branch, made August 7 to 10, 1905.

*Post office.*—National Military Home, Grant County, Ind.

*Local manager.*—Col. Edwin P. Hammond, of Lafayette, Ind. His term of office expires in 1908.

#### OFFICERS.

At date of inspection the officers of the Branch were: Governor, Col. George W. Steele; treasurer, Maj. John Q. Adams; quartermaster, Capt. J. W. Sanderson; surgeon, Maj. Harry Miller; chaplains, Rev. D. E. Myers and Rev. F. C. Weichman. The changes in officers during the year were as follows: Col. Justin H. Chapman, governor, died and was succeeded by Col. George W. Steele; Maj. A. D. Kimball, surgeon, died and was succeeded by Maj. Harry Miller.

#### POPULATION.

On June 30, 1905, there were present and absent 2,317 officers and members, as compared with 2,281 present and absent on June 30, 1904, a gain of 36.

Average number of members present during the year, 1,682; average number absent, 576; total, 2,258. Highest number present any one day, 1,841, on February 28, 1905; lowest number present any one day, 1,594, on June 4, 1905.

Average number temporarily cared for, 12. Total number cared for, 2,878.

Average age of members to June 30, 1905, 66.22 years; of those who served in the civil and prior wars, 66.61 years; of those who served in the Spanish and subsequent wars, 40.55 years. For the preceding year these averages were, respectively, 65.20, 65.61, and 34.72 years.

*Casualties in membership.*

<b>Gain:</b>		
By first admission .....	260	
By readmission .....	221	
By transfer from other Homes .....	114	
Officers, by appointment .....	2	
	<hr/>	597
<b>Loss:</b>		
By transfer to other Homes .....	81	
By discharge .....	269	
By dishonorable discharge .....	5	
By dropped from rolls .....	39	
By death, members .....	153	
By death, commissioned officers .....	2	
By transfer to insane asylums .....	12	
	<hr/>	561
Net gain .....		36

*Return of persons in camp August 7, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families .....	6	5	0
Members' families .....	0	0	0
Civilian employees' families .....	4	5	0
Total .....	10	10	0

*Inspection and review, August 7, 1905.*

	Present in camp.							Absent.			Total present and absent.	
	Present at inspection.			Absent from inspection.				Total present.	With leave.	Without leave.		
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.					
Officers.....	5	-----	5	1	0	0	1	6	0	0	0	6
Noncommissioned officers.....	35	-----	35	0	0	0	0	35	0	0	0	35
Members.....	752	-----	752	139	109	677	925	1,677	586	19	605	2,282
Temporary.....	7	-----	7	0	0	0	0	7	0	0	0	7
Band.....	27	-----	27	0	0	0	0	27	0	0	0	27
Total.....	826	-----	826	140	109	677	926	1,752	586	19	605	2,357

Appearance of the men and of their clothing, and the condition of barracks, buildings, and grounds generally were excellent.

Sixty-two members had been admitted since June 30, and 56 had been discharged, a net gain of 6. There were 57 vacant beds in barracks, and 76 in hospital.

**DISCIPLINE.**

The principal offenses committed were bringing intoxicants within the Home limits, insubordination, drunkenness, and absence without leave. Total number of arrests, 737; trials for drunkenness, 301; for absence without leave, 251. Total number of members offending, 371,

or 21.46 per cent of the average number present. For the preceding year this percentage was 23. One member was in confinement at date of inspection.

#### LIBRARY.

At the close of the fiscal year there were 4,921 volumes in the library, 577 of which had been added during the year. None had been disposed of. The number of books read or circulated was 47,405. Twenty-two newspapers and 14 periodicals are subscribed for, while 24 newspapers and 3 periodicals are furnished free.

#### BAND.

The band is composed of 24 musicians—1 member of the Home and 23 civilians. Its total cost for the year, including the subsistence and other allowances of the civilians, was \$9,285.17. Average monthly compensation of leader, \$100; of members, \$15; of civilians, \$21.

#### HOTEL, STORE, AND BEER HALL.

A building was under construction to contain the store and beer hall. At date of inspection there was no beer hall. The store carries a large variety of articles; the management appears to be good. There is no hotel.

#### THEATER.

Cost of performances, \$1,800. There is no charge to members. Certain employees and members' families are charged 10 cents, and officers and their families 25 cents admission. Receipts from this source were \$119.80.

#### RELIGIOUS SERVICES.

There are two chapels, each chapel having a seating capacity of 300. Average attendance at regular services is: Protestant, 180; Catholic, 150; total, 330; or about 13.6 per cent of the average number of members present. Services are held twice each week.

#### FARM.

Seventy-seven acres are under cultivation, 75 as farm and 2 as vegetable garden.

There is a herd of 21 cows, which were purchased in the latter part of June, 1905, and had produced no milk up to the close of the fiscal year. This herd is to be increased. Milk sells at 20 cents per gallon by the quantity in the nearest town.

On June 30 there was farm stock to the value of \$2,705.

Thirty-five farm hands are employed—20 members and 1 civilian on the farm, 2 members in the vegetable garden, 4 members and 1 civilian in the flower garden, and 7 members in teaming.

The value of the farm and vegetable products was as follows:



Apples -----	\$9. 00	Parsnips -----	\$107. 29
Asparagus -----	. 95	Peas -----	289. 10
String beans -----	139. 42	Parsley -----	23. 30
Beets -----	101. 89	Radishes -----	28. 98
Cabbage -----	1, 232. 36	Rhubarb -----	46. 44
Carrots -----	11. 23	Squash -----	40. 00
Cauliflower -----	2. 28	Tomatoes -----	65. 77
Green corn -----	150. 30	Turnips -----	6. 19
Cucumbers -----	11. 90	Wood -----	82. 50
Greens -----	144. 93	Corn -----	26. 00
Horseradish -----	44. 13	Hay -----	367. 00
Lettuce -----	57. 12	Oats -----	201. 00
Mangoes -----	4. 90	Straw -----	45. 00
Green onions -----	290. 50		
Old onions -----	449. 94	Total -----	3, 779. 40

There are 8 horses, 5 mules, 5 farm wagons, 1 manure wagon, 3 express wagons, 2 dump carts, 1 sprinkler, 1 surrey, 1 carriage for camp use, 1 ambulance, and 1 handy wagon.

The forage allowance for each horse is 12 pounds of grain and 14 pounds of hay; for mules, 9 pounds of grain and 14 pounds of hay. Standing for animals rough; holes worn in floor of stalls.

Value of farm and vegetable products:

Turned into commissary -----	\$3, 049. 81
Fed to stock -----	639. 00
Sold -----	20. 24

Total -----	3, 709. 05
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Cost of maintaining:

Farm proper -----	5, 532. 85
Lawn and flower garden -----	3, 044. 94
Transportation and teams -----	1, 387. 11

Total -----	9, 964. 90
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Amount appropriated for farm was \$10,000.

TREASURER.

GENERAL FUND.

The receipts of the general fund were: By transfer, \$291,925; from sales and other sources, \$5,532.15; total, \$297,457.15. The expenditures amounted to \$294,550.79, of which \$201,526.86 was expended by check and \$93,023.93 in currency.

On account of the posthumous fund \$1,636.45 was received and \$943.28 disbursed.

The improvements made consist of a quartermaster's storehouse, remodeling old quartermaster's storehouse for treasurer's office, a laundry building, and officers' quarters. They cost \$52,015.40. The old guardhouse was remodeled and is now used by the post-office and as a ladies' toilet room. The cost of repairs (not construction) was \$22,229.46. The repairs consisted principally of reflooring the hospital and adding porches to barracks.

Four hundred and ninety-four open-market purchases were made, at a cost of \$10,003.06. They consisted of fresh vegetables, articles for the assistant surgeon's and the nurses' mess, articles of special diet, and coal. The latter item to the value of \$1,105.43 was purchased in open market.

The following were the contract prices of the principal articles of food purchased during the last quarter of the fiscal year:

Article.	Amount purchased.	Cost.	Where purchased.
Flour:			
Winter wheat .....	pounds.. 5,488	\$0.0243	Marion, Ind.
Spring wheat .....	do. 67,424	.0313	Chicago, Ill.
Fresh beef .....	do. 43,081	.071	Marion, Ind.
Bacon .....	do. 5,292	.0965	Chicago, Ill.
Corned beef .....	do. 17,400	.04375	Do.
Salt pork .....	do. 1,200	.0696	Marion, Ind.
Fresh fish .....	do. 4,750	.0779	Detroit, Mich.
Codfish .....	do. 1,400	.081	Chicago, Ill.
Salt mackerel .....	do. 6,400	.075	Do.
Coffee .....	do. 10,685	.104	Indianapolis, Ind.
Tea .....	do. 771	.2444	Cleveland, Ohio.
Potatoes .....	bushels. 1,420	.53	Sheridan, Wis.
Navy beans .....	pounds. 7,500	.03-475	Pontiac, Mich.
Lima beans .....	do. 2,000	.051	Chicago, Ill.
Ham .....	do. 9,816	.0989	Do.
Butterine .....	do. 12,480	.1135	Do.
Sirup .....	gallons. 150	.30	Do.
Cheese .....	pounds. 2,519	.12	Do.
Sugar, A .....	do. 20,041	.0587	Marion, Ind.
Sugar, granulated .....	do. 2,798	.0614	Chicago, Ill.

Under the general fund there are authorized as employees 6 officers, 34 noncommissioned officers, 367 members, and 75 civilians, total 482; while there were actually employed a daily average of 6 officers, 34 noncommissioned officers, 347 members, and 70 civilians, total 457. Their average daily pay was: Officers, \$4.86; noncommissioned officers, 61.27 cents; members, 37.13 cents; civilians, \$1.16. Their pay for the year aggregated \$93,979.71. An average of two per day worked without pay, not as a penalty, while a further average of 31 men per day worked without pay under sentence of the governor's court. They were employed at rag cutting, cleaning the lawns, gutters, and avenues.

The average cost of maintenance per capita was \$168.99, as compared with \$153.47 for the preceding year, an increase of \$15.52. The cause of this increase is not apparent. Corresponding increase does not appear at other Branches.

#### POST FUND.

The employees authorized are 20 members and 26 civilians, while the daily average number employed was 14 members and 21 civilians. Their pay for the year amounted to \$8,237.38.

The cash on hand July 1, 1905, was \$12,908.68, as compared with \$6,351.51 at the beginning of the year. Stock and fixtures at the close of the year were valued at \$117.19 more than at the beginning of the year. Net profit was \$8,021.83.

#### PENSION FUND.

The number of pensioners on the rolls on June 30, 1905, was 2,205, all of whom were reported as present at the Home on that date.

Amount due pensioners July 1, 1904.....	\$15,840.46
Amount received during the year.....	287,088.51
Total .....	303,828.97
Amount disbursed, currency.....	\$193,773.43
Amount disbursed by check.....	94,550.03
	288,323.46
Balance due pensioners July 1, 1905.....	15,005.51

The pensioners were receiving sums ranging in amount from \$6 to \$40 a month, only 1 receiving the latter amount. Of those having balances to their credit 96 had less than \$100 each, 28 had between \$100 and \$500 each, 2 had between \$500 and \$1,000 each, and 1 had more than \$1,000. Two clerks are employed on pension business, one receiving \$360 a year and the other \$300.

## RECAPITULATION.

Total balance July 1, 1904.....		\$85,944.58
Received from general treasurer.....	\$291,925.00	
Received from other sources.....	5,532.15	
		<u>297,457.15</u>
Received from post fund.....		42,416.42
Received from pension fund.....		287,686.51
		<u>713,504.60</u>
Total.....		
Disbursed, general fund.....	294,550.79	
Transferred, general fund.....	23,221.20	
		<u>317,771.99</u>
Disbursed, post fund.....		35,859.25
Disbursed, pension fund.....		288,323.46
Balance June 30, 1905.....		71,549.96
		<u>713,504.66</u>
Total.....		

It would be much to the advantage of this Branch, and avoid the accumulation of cash in the care of the treasurer, if its funds could be deposited with a national depository at Marion, Ind., instead of at Indianapolis, 70 miles distant.

## QUARTERMASTER AND COMMISSARY STORES.

Value of quartermaster stores and current supplies on hand July 1, 1904.....	\$21,876.84
Received from general depot.....	18,865.18
Received by purchase.....	174,979.48
Received by transfer.....	2,066.84
	<u>217,788.34</u>
Total.....	
Dropped by board of survey.....	1,616.95
Dropped by inspector.....	26,239.87
	<u>27,856.82</u>

Balance on hand June 30, 1905, \$23,467.87.

The following classes of property, in the amounts named, were received from the depot:

Current expenses.....	\$834.71
Subsistence.....	396.64
Household.....	480.74
Hospital.....	580.51
Clothing.....	16,572.58

The sum of \$999.94 was received from sales of condemned quartermaster property.

Following is a statement of the clothing accountability, as reported by the quartermaster.

## 230 NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

On hand July 1, 1904:	
In stock and awaiting condemnation-----	\$10,027.28
Issued to members -----	38,260.64
	<hr/>
	48,287.90
Received from depot -----	16,572.58
Received from other sources-----	2,066.84
	<hr/>
	66,927.32
Inspected, condemned, and expended-----	18,232.07
	<hr/>
On hand July 1, 1905:	
In stock and awaiting condemnation-----	10,866.29
Issued to members -----	37,686.46
	<hr/>
	48,652.75

There is a discrepancy of \$42.50 in this account.

Twenty men are employed in the laundry, which was conducted at an expense of \$2,307.10 for labor and \$773.61 for materials. There is no limit to the amount of Home clothing members may put in the wash.

Laundry.

### SUBSISTENCE DEPARTMENT.

The value of subsistence stores on hand on June 30, 1905, was \$1,376.56. Subsistence stores of the original cost of \$333.43 were condemned, and such of them as were sold brought \$1.65.

The dining hall seats 1,072 men. A daily average of 148 men were employed in the dining hall and 71 in the kitchen.

The average cost of a ration per day, including vegetables, fruit, etc., produced on the Home grounds, was 16.36 cents. Last year it was 15.48 cents.

The average cost of a hospital ration per man, including extra diet, was 18.50 cents.

An estimated weight of 66,000 pounds of garbage per month was produced. It is sold on yearly contract, and \$306 was received for it during the fiscal year. At this Branch the slop and garbage vats are emptied after each meal, and they are kept scrupulously clean.

In the fabrication of 335,952 pounds of bread, 17,384 pounds of biscuit, 17,508 pounds of cake, and 23,099 pies, the following articles were used in the amounts named:

Flour -----pounds--	238,014	Cinnamon -----pounds--	27
Lard -----do-----	8,065	Ginger -----do-----	90
Salt -----do-----	1,806	Soda, bicarbonate -----do-----	90
Sugar, A -----do-----	4,310	Peaches, canned -----do-----	5,831
Sugar, C -----do-----	2,490	Apples, canned -----do-----	6,711
Yeast -----do-----	795	Plums, canned -----do-----	1,868
Molasses -----gallons--	302	Apricots, canned -----do-----	3,913
Eggs -----dozens-----	463	Mince-meat -----do-----	1,472
Milk -----gallons-----	312	Cider -----gallons-----	62
Flavoring extracts-----pints--	13	Allspice -----pounds-----	2
Baking powder -----pounds--	249		

### ENGINEER DEPARTMENT.

Water obtained from wells 87 feet deep is of excellent quality. Drainage is by gravity to the Mississinewa River.

The steam plant is used to generate electricity for lighting and for power purposes, the exhaust being used to heat water, which is

circulated through a system of pipes for heating. Its cost was \$130,000, and cost for its maintenance, including fuel, was \$23,750.

Maintenance of lighting plant cost \$2,250. There are 34 arc lights, 7,500 incandescent lights, and 9 gaslights.

There is no cold-storage plant, and no ice is manufactured.

#### MEDICAL DEPARTMENT.

The sick on June 30, 1905, were: In hospital, 141; in convalescent companies, 111; sick call, 51.

The hospital has a capacity for 217 patients; the convalescent quarters for 134. Daily average of patients in hospital, 174; total number admitted during the year, 663.

The principal diseases and percentage of each to the whole number of cases: Myalgia, 0.061; alcoholism, 0.056; valvular disease of heart, 0.041.

Seven members were sent to insane asylums.

The total deaths during the year were 153—129 in hospital and 24 elsewhere. Of these 148 died from natural causes and 5 from other causes.

Average age at death, 69.05 years, as against 67.92 years for the preceding year.

Death rate per thousand of the average present and absent, 67.75.

One hundred and eleven members were buried in the Home cemetery. Altogether 1,095 members are buried there. The cemetery has a capacity for 1,500 graves.

Average number of employees: Members, 40; civilians, 35; female nurses, 11. Their cost for the year was \$17,613.

Amount expended for drugs, \$3,685.39; for appliances, \$1,149.70. The number of drugs, preparations, etc., used in the dispensary was 337. Many surgical instruments in need of replating. Some are beyond repair.

The affairs of this Branch generally were in a very satisfactory condition.

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#### No. 4.—Report of Inspection of the Northwestern Branch, made August 11 to 16, 1905.

*Post-office.*—The National Home, Wisconsin.

*Local manager.*—Col. John M. Holley, La Crosse, Wis. His term of office expires in 1910.

#### OFFICERS.

At date of inspection the officers of the Branch were: Governor, Col. Cornelius Wheeler; treasurer, Maj. J. E. Armitage; surgeon, Maj. Oscar Chrysler; quartermaster, Capt. W. W. Rowley; commissary of subsistence, Capt. C. O. Collins; adjutant and inspector, Capt. H. A. Valentin; chaplains, Rev. E. Purdon Wright and Rev. M. J. Huston. There had been no change in the officers of the Branch during the fiscal year.

During the inspection the governor, Colonel Wheeler, was absent. He returned a few hours prior to the departure of the inspector.

## POPULATION.

On June 30, 1905, there were 2,456 officers and members present and absent, as compared with 2,567 on June 30, 1904, a loss of 111.

Average number present during the year, 2,107; average number absent, 417; total average present and absent, 2,524. Highest number present any one day, 2,230, on January 10, 1905; lowest number present any one day, 1,978, on May 10, 1905.

Average temporarily cared for, 12; total number cared for, 3,189.

Average age of members to June 30, 1905, 68.07 years; of those who served in the civil and prior wars, 68.79 years; of those who served in the Spanish and subsequent wars, 38.16 years. Last year these averages were, respectively, 66.82, 68.69, and 30.57 years.

*Casualties in membership.*

Gain:		
By first admission .....	295	
By readmission .....	253	
By transfer from other Homes .....	74	
	<hr/>	622
Loss:		
By transfer to other Homes .....	152	
By discharge .....	259	
By dishonorable discharge .....	14	
By dropped from rolls .....	69	
By death .....	229	
By transfer to Government Insane Asylum .....	10	
	<hr/>	733
Net loss .....		111

*Return of persons in camp August 12, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families .....	0	19	3
Members' families .....	2	6	3
Civilian employees' families .....	2	13	9
Total .....	4	37	13

There was no review of the members. They were inspected in quarters on August 12, at which time there were 250 men sick and 505 on extra duty, while 457 were absent on leave and 25 were absent without leave.

Ninety-six members were admitted between June 30 and the date of inspection, while 87 had been discharged during the same period. At date of inspection there were 153 vacant beds in the barracks and 43 in the hospital.

## DISCIPLINE.

The principal offenses committed were bringing intoxicating liquor within the Home grounds, absence without leave, and drunkenness. Total number of arrests, 1,105; trials for drunkenness, 338; for absence without leave, 432. Total number of members offending, 556, or about 26.33 per cent of the average number present, as against 28.61 per cent for the preceding year. The docket records and the

complaints received indicate that the requirements of paragraph 180, Home Regulations, relative to daily session of governor's court, have not been complied with.

#### LIBRARY.

At the close of the fiscal year there were 10,542 volumes in the library, 516 of which had been added during the year. Forty-one newspapers and 23 periodicals are subscribed for, and 34 newspapers and 3 periodicals are furnished free. One hundred and fifty-one volumes were condemned, and those circulated aggregated 35,968.

#### BAND.

The band is composed of 15 men, all civilians. Its total cost for the year, including the subsistence and other allowances of the civilian musicians, was \$6,653.85. Average monthly compensation of leader, \$100; of civilian musicians, \$24.92.

#### BEER HALL.

The beer hall is well managed and in good condition, except that the cellar is dark and damp. There is no hotel. A lunch counter is run in connection with the beer hall.

#### THEATER.

Members of the Home are not charged for admissions to theatrical performances given in the Home theater. Others are charged 5 and 10 cents, and the receipts from this source amounted to \$63.30. Expenses for performances amounted to \$2,003.26.

#### RELIGIOUS SERVICES.

There is one chapel, which is used for both Protestant and Catholic services. The attendance at regular services averages 130, or about 6.5 per cent of the average number of members present.

#### FARM.

Two hundred and fifty acres under cultivation—245 as farm, and 5 as garden for vegetables.

There are 50 cows, which yielded 29,287 gallons of milk, at a cost of 13.5 cents per gallon. The price of milk per gallon, by the quantity, in the nearest town, is 14.25 cents.

Value of farm stock on hand June 30, 1905, \$3,834.25.

An average of 40 farm hands were employed—22 members and 1 civilian on the farm, 3 members in the vegetable garden, 3 members and 1 civilian in the flower garden, and 10 members in teaming.

#### *Value of the farm and vegetable products, by items.*

Apples -----	\$52.50	Hay -----	\$1,632.00
Beets -----	32.00	Milk -----	4,173.40
Cabbage -----	191.00	Poultry -----	4.98
Calves -----	488.49	Rhubarb -----	117.60
Corn, green -----	157.50	Spinach -----	40.00
Cucumbers -----	8.50	Squash -----	54.90
Eggs -----	31.34	Tomatoes -----	187.50
Ensilage -----	714.00		
Flowers and plants -----	1,250.50	Total -----	9,088.19

This Branch has 24 vehicles and 24 horses, which are used by the subsistence and quartermaster's departments, for farm, for hospital, and for general uses.

The allowance of forage for each horse is 14 pounds of hay and 12 pounds of oats.

Value of farm and garden products:

Turned into commissary.....	\$6,251.20
Fed to stock.....	2,346.00
Sold .....	491.89
<b>Total .....</b>	<b>9,089.09</b>

Cost of maintaining:

Farm proper .....	5,231.20
Lawn and flower garden.....	2,371.70
Transportation and teams.....	3,897.10
<b>Total .....</b>	<b>11,500.00</b>

Amount appropriated for maintenance of farm, \$10,500.

Conditions about the farm were not satisfactory. The farmer showed lack of familiarity with the affairs of the farm, and apparently fails to appreciate his duties and responsibilities.

TREASURER.

GENERAL FUND.

The receipts of the general fund during the year were: From transfers, \$311,530.68; from sales and other sources, \$9,593.25; total, \$321,123.93. The expenditures amounted to \$311,680.20, all of which was disbursed by check.

Received on posthumous account, \$3,509.70; expended, \$1,749.66.

The improvements (not repairs) consisted of putting elevators in the barracks, at a cost of \$7,305.68. There was no change in the number or design of buildings. The cost of repairs (not construction) amounted to \$34,754.96.

One hundred and ninety-three open-market purchases were made, amounting in all to \$5,263.16. They consisted of turkey, etc., for the Christmas dinner; lemons, oranges, chickens, etc., for special diet in the hospital; oysters for patients in the hospital; vegetables, etc., and articles for the assistant surgeon's and nurses' mess.

The following were the contract prices of the principal articles of food for the last quarter of the fiscal year:

Article.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds..	74,780	\$0.0207	Milwaukee, Wis.
Fresh beef.....do..	69,000	.003	Chicago, Ill.
Bacon.....do..	10,000	.0031	Do.
Salt pork.....do..	2,000	.005	Milwaukee, Wis.
Fresh fish.....do..	4,500	.09	Do.
Codfish.....do..	2,400	.059	Chicago, Ill.
Salt mackerel.....do..	2,800	.0798	New York, N. Y.
Coffee.....do..	13,500	.1075	Milwaukee, Wis.
Tea.....do..	800	.24	Do.
Potatoes.....do..	96,000	.0546	Sheridan, Wis.
Navy beans.....do..	3,500	.03	Chicago, Ill.
Lima beans.....do..	1,300	.051	Do.
Ham.....do..	10,000	.0057	Do.
Butter.....do..	13,000	.2475	Milwaukee, Wis.
Sirup.....gallons..	125	.27	Do.
Cheese.....pounds..	2,000	.12	Do.
Sugar, A.....do..	24,000	.0584	Do.
Sugar, granulated.....do..	2,000	.0619	Chicago, Ill.



Under the general fund there are authorized as employees 8 officers, 31 noncommissioned officers, 435 members, and 73 civilians; total, 547. The average number daily employed equaled the number authorized. Their average daily pay was: Officers, \$4.41; noncommissioned officers, 50 cents; members, 32 cents; civilians, \$1.13. They were paid in the aggregate \$100,178.07. An average of 32 members worked daily without pay, being employed in camp, police, pallbearing, and fatigue duties.

The average cost of maintenance per capita was \$150.69, as against \$148.99 for the preceding year, an increase of \$1.70.

POST FUND.

The post-fund employees authorized are 42 members and 25 civilians; while the average daily number employed was 36 members and 22 civilians. Their cost for the year amounted to \$7,889.83.

The cash on hand on July 1, 1905, was \$7,424.55, as compared with \$8,613.26 at the beginning of the year. Stock and fixtures were valued at \$27 more at the close than at the beginning of the year.

The net profit of the fund was \$166.88.

The daily collections of cash from the beer hall and store should, as a matter of policy, be made by an officer.

PENSION FUND.

The number of pensioners on the rolls on June 30, 1905, was 2,308, of whom there were present at the Home 1,838.

Amount due pensioners July 1, 1904.....	\$23, 612. 31
Amount received during the year.....	302, 075. 02
Total .....	325, 687. 33
Amount disbursed, currency .....	\$214, 892. 59
Amount disbursed by check.....	85, 638. 23
	300, 530. 82
Balance due pensioners.....	25, 156. 51

The pensioners on the rolls, 2,306 in number, were receiving pensions ranging in amount from \$6 to \$55, only 2 receiving the latter sum. Of the 275 who had sums to their credit, 212 had less than \$100 each, 57 had between \$100 and \$500 each, 5 had between \$500 and \$1,000 each, and 1 had more than \$1,000. Two clerks are employed on pension business at salaries of \$1,000 and \$360, respectively.

RECAPITULATION.

Total balance July 1, 1904.....	\$47, 614. 68
Received from general treasurer.....	\$311, 530. 68
Received from other sources.....	9, 593. 25
	321, 123. 93
Received from post fund.....	34, 079. 13
Received from pension fund.....	302, 075. 02
Total .....	704, 892. 76
Disbursed, general fund .....	320, 212. 18
Disbursed, general fund .....	6, 857. 13
	327, 069. 31
Disbursed, post fund.....	35, 267. 84
Disbursed, pension fund.....	300, 530. 82
Balance June 30, 1905.....	42, 024. 79
	704, 892. 76

## QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....	\$22, 736. 01
Received from general depot .....	28, 533. 40
Received by purchase.....	170, 412. 28
Received by transfer.....	1, 303. 07
	<hr/>
	222, 984. 76
	<hr/>
Dropped by board of survey.....	2, 530. 96
Dropped by inspector.....	27, 619. 00
	<hr/>
	30, 149. 86

Balance on hand June 30, 1905, \$25,431.60.

Following is a statement of the clothing accountability, as reported by the quartermaster:

On hand July 1, 1905:	
In stock and awaiting condemnation.....	\$8, 476. 79
Issued to members.....	46, 537. 44
	<hr/>
	55, 014. 23
Received from depot.....	24, 250. 29
Received from other sources.....	1, 303. 07
	<hr/>
	80, 567. 59
Inspected, condemned, and expended.....	22, 030. 49
	<hr/>
On hand July 1, 1905:	
In stock and awaiting condemnation.....	11, 730. 99
Issued to members.....	45, 533. 51
	<hr/>
	57, 264. 50

There is a discrepancy of \$1,272.60 in this account.

Fifteen men are employed in the laundry, which was conducted at a cost of \$1,770 for labor and \$828 for materials.

## SUBSISTENCE DEPARTMENT.

Subsistence stores of the cost value of \$1,002.89 were on hand on June 30, 1905. No subsistence property was condemned.

The dining hall seats 960 men. An average of 18 men were daily employed in the kitchen and 71 in the dining hall.

The average cost of a ration per day, including vegetables, milk, and fruit produced on the Home grounds, was 15.94 cents. Last year it was 17.06 cents.

The average cost of hospital rations per man per day, including extra diet, was 17.70 cents. Last year it was 21.09 cents.

Garbage to the estimated amount of 36,000 pounds per month was produced. Half of it is used on the farm and the other half is sold. Three hundred and twelve dollars was received from this source.

It was reported that in the fabrication of 429,996 pounds of bread and 24,648 pies the following articles were used:

Graham flour-----pounds--	16, 072	Yeast -----pounds--	768
Wheat flour -----do-----	304, 774	Molasses -----gallons--	471
Corn meal -----do-----	3, 100	Sugar, A -----pounds--	10, 186
Butter -----do-----	175	Sugar, granulated-----do--	946
Apples, evaporated -----do--	5, 646	Sirup -----gallons--	129
Apricots, evaporated-----do--	175	Rhubarb -----pounds--	1, 900
Currants, dried -----do--	589	Allspice -----do-----	16
Mince-meat -----do-----	1, 275	Cinnamon -----do-----	92
Raisins -----do-----	233	Cloves -----do-----	4
Apples, green -----do-----	2, 200	Lemon extract-----pint--	1
Eggs -----dozens--	100	Ginger -----pounds--	94
Milk -----gallons--	1, 232	Lard -----do-----	9, 240
Baking powder -----pounds--	6	Salt -----do-----	4, 810
Soda, bicarbonate -----do--	262		

#### SHOPS.

Following is a statement of the value of the property, supplies, or stores issued to each shop and the amount paid for services in each :

	Material.	Services.	Total.
Bakery.....	\$10,859.57	\$1,258.01	\$12,117.58
Harness shop.....	48.37	180.00	228.37
Horseshoeing shop.....	88.70	178.00	216.70
Printing office.....	148.88	800.42	449.25
Repair shop.....	5,976.47	6,543.99	12,520.46
Shoe shop.....	780.67	522.68	1,258.35
Tailor shop.....	146.85	1,110.00	1,256.85
Upholsterer's shop.....	67.18	189.10	206.28
Total.....	18,016.59	10,232.20	28,248.79

#### ENGINEER DEPARTMENT.

Water is supplied from the Milwaukee city waterworks. There is an intercepting sewerage system in good condition.

The steam plant is used for supplying power to the engines, heating the public buildings, and cooking in the several mess halls. It cost \$20,408. Cost of maintenance, \$30,784.

The lighting plant cost for maintenance, \$4,350. There are 4 arc lights, 2,400 incandescent lights, and 90 gaslights.

The cold-storage plant is cooled by ice. The Home receives an ample supply of ice, without cost, from the lake on the reservation, by giving the contractor the ice that is left after he has filled the Home's ice house.

#### FIRE DEPARTMENT.

Protection against fire appeared adequate, except that additional standpipes and hose are needed on the stage of the theater, and fire buckets in billiard room should be kept filled and should not be used for scrubbing purposes.

One fire occurred during the year at the quartermaster's quarters; loss, \$322.

#### MEDICAL DEPARTMENT.

The sick on June 30, 1905, were: In hospital, 245; sick call, 36.

The hospital has a capacity for 300 patients. There are no convalescent quarters. Total number of patients admitted during the year, 1,016; daily average of patients in hospital, 259.

The principal diseases and percentage of each to the whole number of cases were: Cardiac degeneration, various, 0.14791; chronic bronchitis, 0.7838; chronic rheumatism, 0.5105; arterio-sclerosis, 0.4863.

The total deaths were 229, of whom 202 died in the hospital and 27 elsewhere. Two hundred and twenty-four died from natural causes and 5 from other causes.

Average age at death, 71.32 years, as against 74.34 years for the preceding year.

Death rate per thousand of the average present and absent, 71.9.

One hundred and eighty-one members were buried in the Home cemetery. The total number interred there is 3,101. The capacity of the cemetery is unlimited.

Ten members were sent to insane asylums.

Average number of employees, 86; civilians, 28; female nurses, 13. Their cost aggregated \$22,809.62.

Number of drugs, preparations, etc., used in the dispensary, 296. Amount expended for drugs, \$4,554.41 (including wines and liquors); for appliances, \$340.05.

#### SPECIAL MENTION.

A bad state of police and lack of cleanliness in many places was conspicuous. The following are noted: Garbage vats, barnyards, stables, cow barns, old privies, social hall, basement of beer hall, band quarters.

In his report last year the inspector remarked relative to this Branch:

The general police of the grounds of this Branch was not up to the standard. More litter was observed than at any other Branch.

The many defects observed at this Branch suggest lack of personal supervision by responsible officers.

#### No. 5.—Report of Inspection of the Pacific Branch, made September 2 to 6, 1905.

*Post-office.*—Soldiers' Home, California.

*Local manager.*—Col. H. H. Markham, of Pasadena, Cal. His term of office expires in 1910.

#### OFFICERS.

At date of inspection the officers of the Branch were: Governor, Gen. O. H. La Grange; treasurer, Maj. T. J. Cochrane; surgeon, H. E. Hasse; quartermaster and commissary, Capt. S. T. Reber. No change in the officers of the Branch occurred during the fiscal year.

#### POPULATION.

On June 30, 1905, there were present and absent 3,216 officers and members, as compared with 3,060 on June 30, 1904, a gain of 156.

Average present, 2,145; average absent, 1,143; total, 3,288. Highest number present any one day, 2,286, on March 8, 1905; lowest number present any one day, 1,927, on July 4, 1904.

Daily average temporarily cared for, 26; total number cared for, 3,746.

Average age of members to June 30, 1905, 61.16 years; of those who served in the civil and prior wars, 64.41 years; of those who served in the Spanish and subsequent wars, 38.91 years. Last year these average ages were, respectively, 60.17, 66.25, and 34.62 years.

*Casualties in membership.*

<b>Gain:</b>		
By first admission .....	566	
By readmission .....	113	
By transfer from other Homes .....	7	
		686
<b>Loss:</b>		
By transfer to other Homes .....	47	
By discharge .....	159	
By dishonorable discharge .....	4	
By dropped from rolls .....	74	
By death .....	243	
By transfer to State insane asylums .....	3	
		530
<b>Net gain</b> .....		156

*Return of persons in camp September 4, 1905, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families .....	5	6	0
Members' families .....	0	0	0
Civilian employees' families .....	2	2	2
<b>Total</b> .....	7	8	2

*Inspection and review, September 4.*

	Present in camp.							Absent.			Total present and absent.	
	Present at inspection.			Absent from inspection.				Total present.	With leave.	Without leave.		
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.					
Officers.....	4	.....	4	0	0	0	0	4	0	0	0	4
Noncommissioned officers .....	31	.....	31	0	0	0	0	31	0	0	0	31
Members .....	1,723	235	1,958	379	428	141	948	2,906	1,167	10	1,177	4,083
Temporary .....	7	.....	7	0	0	0	0	7	0	0	0	7
Band .....	16	.....	16	0	0	0	0	16	0	0	0	16
Total .....	1,781	235	2,016	379	428	141	948	2,964	1,167	10	1,177	4,141

Fifty-four members had been admitted since June 30, and 35 had been discharged, a net gain of 19. There were 262 vacant beds in barracks and 42 in the hospital. Appearance of the men very good; clothing neat and well cared for. Barracks in good condition, except that porches were stained by tobacco. Barber shop and dental room dirty.

## DISCIPLINE.

The principal offenses committed were drunkenness and disorderly conduct, absence without leave, and violation of the Home rules. Total number of arrests, 130; trials for drunkenness, 56; for absence without leave, 44. Total number offending, 130, or 6.07 per cent of the average number present. For the preceding year this percentage was 6.13. No members were in confinement at date of the inspection. Several instances of loaning of money among the members at exorbitant rates of interest were brought to the attention of the Inspector.

## LIBRARY.

A room on the second floor of the headquarters building is used as library. At the close of the fiscal year the library contained 5,430 volumes, a gain of 544. Thirty-four papers are received free and 6 are subscribed for. Six periodicals are furnished free. During the year 93 volumes were destroyed by order of the inspector. The number of books read or circulated was 32,400.

## BAND.

The band is composed of 18 musicians—3 members of the Home and 15 civilians. Its total cost for the year, including subsistence and other allowances of civilians, was \$7,079.84. Average monthly compensation of leader, \$75; of members, \$18.33; of civilians, \$25.53. Members of band untidy, and quality of music not good. The leader is a member of the Home.

## BEER HALL, STORE, AND RESTAURANT.

Beer hall, store, restaurant, and bedrooms are in one building; all appear to be well managed. Floor of beer hall was dirty and unsightly from tobacco. The store is small; inventories are taken monthly.

## DENTIST.

Character of dental work done and charges for same were causes of much well-merited complaint. The dentist is a member, who also runs a dental shop in the neighboring town; he does not even live at the Home. His methods are objectionable and his presence undesirable.

## THEATER.

Members are admitted to all performances without charge; others pay an admission fee of 10 cents. The sum of \$173.60 was received from this source. Expenses for performances, \$2,535.

## RELIGIOUS SERVICES.

There are two chapels, Protestant and Catholic. Average attendance at regular services: Catholic, 125; Protestant, 200; or about 15.1 per cent of the average number of members present. Two chaplains are employed, neither of whom is an officer of the Home.

FARM.

There are 450 acres under cultivation—430 as farm and 20 as vegetable garden. The whole is leased to a farmer and is worked on shares.

This Branch has no cows. Milk is purchased at 16.5 cents per gallon.

A herd of about 600 hogs consumes the slops and yields excellent profits.

Value of farm stock on hand June 30, 1905, \$9,490.

Forty-nine farm hands are employed—20 members and 1 civilian on the farm and garden, 18 members in the flower garden, and 10 members in teaming.

*Value of farm and vegetable products for the year.*

String beans -----	\$49.53	Grapes -----	\$80.00
Beets -----	119.38	Greens -----	249.23
Cabbage -----	505.92	Lemons -----	22.83
Green corn -----	57.35	Parsley -----	27.30
Carrots -----	213.03	Peaches -----	12.50
Cucumbers -----	72.68	Fresh pork -----	142.73
Lettuce -----	900.86	Oranges -----	9.00
Onions -----	302.15	Walnuts -----	240.00
Parsnips -----	78.52	Corn, shelled -----	1,094.60
Pumpkins -----	53.00	Hay -----	1,148.55
Squash -----	168.16	Do -----	600.00
Tomatoes -----	149.54	Hogs -----	3,234.12
Chillies -----	16.30	Sheep -----	538.00
Green onions -----	329.50	Wool -----	45.26
Turnips -----	142.41		
Figs -----	81.99	Total -----	10,684.64

All of these articles, except the last two items, were received from the lessees of the farm and garden as the Home's share of the product for the year.

There were on hand 18 vehicles and 20 horses.

The allowance of forage for each horse is 12 pounds of barley and bran combined, 14 pounds of hay, and 3 pounds of straw.

Value of farm and vegetable products:

Turned into commissary -----	\$4,024.11
Fed to stock -----	2,243.15
Sold -----	4,640.04

Total ----- 10,907.30

Cost of maintaining:

Farm proper -----	5,842.40
Lawn and flower garden -----	4,119.85
Transportation and teams -----	4,089.71

Total ----- 14,051.96

Amount appropriated for farm for the year, \$10,000.

TREASURER.

GENERAL FUND.

The receipts of the general fund were: By transfer, \$324,399.55; from sales and other sources \$12,504.98; total, \$336,904.53. The expenditures amounted to 42,345.78, of which \$246,871.63 was expended by check, and 1,4

Received on account of the posthumous fund, \$4,141.35; disbursed, \$1,831.29.

The improvements made consist of an additional wing to the hospital, the installation of a 100-horsepower Sterling boiler, and a concrete septic tank for the hospital. Aggregate cost was \$37,367.36.

The cost of repairs (not construction) was \$39,648.73. These repairs consisted principally of hard-wood floors for barracks A, E, and F; painting the exterior and interior of barracks, hospital, etc.; renewing concrete conduit for steam lines, and swill hoppers for hospital and dining hall.

One hundred and twenty-six open-market purchases were made, amounting to \$3,158.06. These purchases were fresh vegetables, fruit, special diet, carpets, horses, plants, seeds, medical books, sewing machines, linoleum and shades, horseshoeing, supplies for the assistant surgeons' mess, and subsistence supplies.

The following were the contract prices of the principal articles of food for the last quarter of the fiscal year:

Articles.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds.	92,708	\$0.0247	Los Angeles, Cal.
Fresh beef.....do.	83,193	.0610	Do.
Bacon.....do.	6,600	.1125	Do.
Salt pork.....do.	1,000	.082	San Francisco, Cal.
Codfish.....do.	6,000	.0625	Los Angeles, Cal.
Coffee.....do.	14,225	.0995	Do.
Tea.....do.	720	.19	Do.
Potatoes.....do.	150,655	.013	Do.
Navy beans.....do.	2,750	.033	Do.
Ham.....do.	15,451	.10375	Do.
Butterine.....do.	9,900	.1175	Do.
Sirup.....gallons.	100	.365	San Francisco, Cal.
Cheese.....pounds.	1,218	.125	Los Angeles, Cal.
Sugar, granulated.....do.	23,100	.0593	Do.

There are authorized as employees 4 officers, 29 noncommissioned officers, 398 members, 60 civilians; total, 491. There were actually employed 4 officers, 29 noncommissioned officers, 384 members, 55 civilians; total, 472. Average daily pay: Officers, \$6.15; noncommissioned officers, 62.6 cents; members, 34.8 cents; civilians, \$1.54. They were paid the aggregate sum of \$96,809.46. An average of 3 members worked daily without compensation, being employed in policing the Home grounds.

The average cost of maintenance per capita was \$146.99, as against \$159.85 for the preceding year, a decrease of \$12.86.

#### POST FUND.

The employees authorized are 27 members and 9 civilians, while the average daily number employed was 26 members and 9 civilians. Their pay aggregated \$5,920.46. The cash on hand July 1, 1905, was \$40,715.55, as compared with \$28,861.02 at the beginning of the year. The stock and fixtures on hand at the end of the year were valued at \$1,962.38 more than at the beginning of the year. The net profit of the post fund was \$13,034.80.



PENSION FUND.

\*On June 30, 1905, there were 2,974 pensioners on the rolls, of whom 1,781 were present at the Home.

Amount due pensioners July 1, 1904.....	\$11, 260. 00
Amount received during the year.....	385, 078. 86
	<hr/>
	396, 338. 86
Amount disbursed, currency.....	\$228, 639. 29
Amount disbursed by check.....	153, 452. 71
	<hr/>
	382, 092. 00
Balance due pensioners July 1, 1905.....	14, 246. 86

The pensioners, 2,974 in number, were receiving sums ranging from \$6 to \$30 per month, 10 receiving the latter amount. Two hundred and seventy-six of them had balances of less than \$100 to their credit, 22 had between \$100 and \$500, and 3 had between \$500 and \$1,000. One civilian clerk, at a salary of \$1,200 a year, and 1 member clerk, at a salary of \$240 a year, are employed on pension business.

RECAPITULATION.

Total balance July 1, 1904.....	\$72, 065. 28
Received from general treasurer.....	\$324, 399. 55
Received from other sources.....	12, 504. 98
	<hr/>
	336, 904. 53
Received from post fund.....	59, 371. 20
Received from pension fund.....	385, 078. 86
	<hr/>
Total .....	853, 419. 87
Disbursed, general fund.....	342, 345. 78
Transferred, general fund .....	4, 789. 58
	<hr/>
	347, 135. 36
Disbursed, post fund.....	47, 516. 67
Disbursed, pension fund.....	382, 092. 00
Balance June 30, 1905.....	76, 675. 84
	<hr/>
Total .....	853, 419. 87

QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....	\$265, 611. 40
Received from general depot.....	25, 801. 33
Received by purchase.....	59, 137. 78
Received by transfer.....	79. 16
	<hr/>
Total .....	350, 629. 67
Dropped by board of survey.....	\$2, 456. 29
Dropped by inspector.....	28, 336. 48
	<hr/>
	30, 792. 77
Balance on hand July 1, 1905.....	319, 836. 90

The following classes of property, in the amounts named, were received from the depot:

Current expenses.....	\$637. 15
Subsistence .....	126. 23
Household .....	1, 895. 38
Hospital .....	2, 981. 32
Clothing .....	20, 163. 40

## 244 NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

Following is a statement of the clothing accountability:

On hand July 1, 1904:	
In stock and awaiting condemnation-----	\$16,663.93
Issued to members-----	44,665.95
	<hr/>
	61,329.88
Received from depot-----	20,163.40
Received from other sources-----	79.16
	<hr/>
	81,572.44
Inspected, condemned, and expended-----	20,441.07
	<hr/>
On hand July 1, 1905:	
In stock and awaiting condemnation-----	18,301.11
Issued to members-----	42,830.26
	<hr/>
	61,131.37

Seventeen men are employed in the laundry, which was conducted at a cost of \$2,160 for labor and \$1,697.45 for materials. Each member is allowed to put 1 shirt, 1 pair of drawers, 1 pair of socks, and 1 pillowcase in the wash each week.

There are 10 frame barracks, each of which was originally intended to accommodate 100 men, but they now have an average of 176 occupants each. None of the members slept on floors during the year. The average dormitory air space per man is 887.8 cubic feet. With 262 vacant beds and 1,177 members absent the overcrowded condition is apparent. One new set of barracks is in process of construction. Needs: (1) A storehouse; (2) a shed for housing farming implements, tools, and wagons (at present all are exposed to weather); (3) a building to contain the various shops; (4) a suitable morgue (basement room, now used, is unsuitable); (5) roads should be oiled to do away with the dust.

There are no storehouses, properly so called. Supplies are stored in the basements of the dining hall and of six barracks and in the oil and iron houses—a very unsatisfactory arrangement.

### SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$3,870.56. None were condemned.

The dining hall seats 784 men. An average of 38 men were employed in the kitchen and 107 in the dining room.

Average cost of a ration per day, including vegetables, fruit, etc., produced on the Home grounds, 17.09 cents. Last year it was 18.54 cents.

Average cost of hospital ration per man per day, including special diet, 18.54 cents. Last year it was 19.36 cents.

It was reported that the following ingredients were used in the fabrication of 491,295 pounds of bread, 30,096 pounds of corn bread and gingerbread, 22,272 pounds of cake, and 12,012 pies:

# NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. 245

Flour, straight.....pounds..	331,330	Lard .....	pounds..	680
Corn meal.....do.....	5,734	Salt .....	do.....	7,550
Apples, evaporated .....	485	Graham flour .....	do.....	13,050
Raisins .....	305	Apples, canned.....do.....		15,915
Milk .....	gallons..	Currants, dried .....	do.....	485
Baking powder .....	pounds..	Eggs .....	dozens..	1,830
Yeast, compressed.....do.....	284	Hops .....	pounds..	232
Sirup .....	gallons..	Soda, bicarbonate .....	do.....	65
Irish potatoes .....	pounds..	Molasses .....	gallons..	305
Cider .....	gallons..	Sugar, granulated.....pounds..		10,250
Flavoring extracts.....pints..	30	Cinnamon .....	do.....	51
Ginger .....	pounds..	Mince-meat .....	do.....	680

A separate and suitable room should be provided for use as butcher shop.

## SHOPS.

Following is a statement of the value of the property, supplies or stores issued to each shop and the amount paid for services in each during the year:

	Labor.	Material.	Total.
Printing office.....	\$330.00	\$33.25	\$413.25
Bakery .....	1,650.00	16,026.62	17,676.62
Ice factory .....	438.00	249.58	687.58
Upholsterer's shop.....	37.50	4.46	41.96
Repair shop .....	7,791.90	12,944.87	20,736.77
Harness shop .....	180.00	58.64	238.64
Horseshoeing shop .....	41.50	21.58	63.08
Shoe shop .....	420.00	848.92	1,268.92
Tailor shop .....	1,102.15	123.06	1,225.21
Total.....	11,991.05	30,360.98	42,352.03

## ENGINEER DEPARTMENT.

Water, 500,000 gallons daily, is furnished by a gravity system by the West Los Angeles Water Company, at an annual cost of \$10,000. An additional, but uncertain supply is obtained from a neighboring canyon. The question of water supply at this Branch may at any time become a vital one, and should receive immediate consideration.

The sewerage system consists of cement gutters for surface drainage and vitrified pipe for sewerage, which passes through septic tanks. The system is in good condition. It is also used in the broad irrigation of the garden.

Original cost of the steam plant was \$49,305. Cost of maintenance was \$14,642.20.

The cost of maintenance of the electric-light plant was \$7,778. There are 27 arc lights and 3,431 incandescent lights.

One hundred and ninety-eight and eighty-five one hundredths tons of ice were manufactured, at a cost of \$2.75 per ton.

## FIRE DEPARTMENT.

Protection against fire appears adequate, except in the theater, where there is no fire curtain, no fire buckets, and not sufficient hose. No fires occurred during the year.

## MEDICAL DEPARTMENT.

On June 30, 1905, the sick were as follows: In hospital, 319; in convalescent companies, 40; on sick call, 11.

The hospital has a capacity for 373 patients, the convalescent quarters for 60. The daily average number of patients in hospital was 291; in convalescent quarters, 32. Total number of patients admitted to the hospital, 1,099.

The principal diseases and percentage of each to the whole number of cases were: Alimentary system, 6.16; circulatory system, 5.63; respiratory system, 5.16; genito-urinary system, 3.71; nervous system, 3.16.

Three members were sent to a State insane asylum.

Total number of deaths, 243—210 in the hospital and 33 elsewhere; 240 died from natural causes and 3 from other causes.

The average age at death was 66.2 years, as against 67 years for 1904.

Death rate per thousand of the average present and absent, 64.86.

Two hundred and forty-three members were buried in the Home cemetery. The total number interred there was 1,621. The cemetery has a capacity for 5,000 graves.

Average number of employees: Members, 107; civilians, 29; female nurses, 13. Their pay aggregated \$26,777.34.

Number of drugs, preparations, etc., used in the dispensary, 250; amount expended for drugs, \$3,199.65; for appliances, \$3,019.80.

Tuberculosis cases are kept in same ward with other patients.

Many enameled receptacles had enamel worn and broken off.

No check on expenditure of perishable medical stores.

Screens for windows and doors of new wing of hospital are needed.

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**No. 6.—Report of Inspection of the Western Branch made September 14 to 17, 1905.**

*Post-office.*—National Military Home, Kansas.

*Local manager.*—Maj. William Warner, of Kansas City, Mo. His term of office expires in 1906.

## OFFICERS.

At date of inspection the officers were: Governor, Col. Sidney G. Cooke; treasurer, Maj. William W. Martin; quartermaster, Col. U. B. Pearsall; commissary of subsistence, Capt. D. C. Goodrich; surgeon, Maj. J. L. Fryer; chaplains, Rev. James M. Payne, Rev. Thomas H. Kinsella. The only change in officers was the transfer of Maj. A. G. Hull, surgeon, to the Battle Mountain Sanitarium and the appointment of Maj. J. L. Fryer to succeed him.

## POPULATION.

On June 30, 1905, there were present and absent 4,084 officers and members, as compared with 4,037 on June 30, 1904, a gain of 47.

Average present, 2,793; average absent, 1,318; total, 4,111.

# NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. 247

Highest number present any one day, 3,092, on February 22, 1905; lowest number any one day, 2,371, on June 8, 1905.

Average number temporarily cared for, 29; total number cared for, 5,272.

Average age of all members to June 30, 1905, 65.18 years; of those who served in the civil war and prior wars, 66.4 years; of those who served in the Spanish war and subsequent wars, 38 years. For the preceding year these average ages were, respectively, 65, 65.7, and 36.9 years.

## *Casualties in membership.*

### Gain:

By appointment, officer .....	1
By first admission .....	787
By readmission .....	399
By transfer from other Homes .....	48
	<b>1,235</b>

### Loss:

By transfer, officer .....	1
By transfer to other Homes .....	153
By discharge .....	531
By dishonorable discharge .....	15
By dropped from rolls .....	187
By death .....	286
By transfer to insane asylum .....	15
	<b>1,188</b>

Net gain ..... 47

*Return of persons in camp September 17, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families .....	10	7	1
Members' families .....	0	0	0
Civilian employees' families .....	4	5	6
<b>Total .....</b>	<b>14</b>	<b>12</b>	<b>7</b>

## *Inspection and review September 17, 1905.*

	Present in camp.							Absent.			Total present and absent.	
	Present at inspection.			Absent from inspection.				Total present.	With leave.	Without leave.		
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.					
Officers .....	7	.....	7	0	0	0	0	7	0	0	0	7
Noncommissioned officers .....	39	.....	39	0	0	0	0	39	1	0	1	40
Members .....	1,034	.....	1,034	280	724	456	1,460	2,494	1,514	27	1,541	4,035
Temporary .....	33	.....	33	0	0	0	0	33	0	0	0	33
Band .....	19	.....	19	0	0	0	0	19	0	0	0	19
Total .....	1,132	.....	1,132	280	724	456	1,460	2,592	1,515	27	1,542	4,134

Appearance of members and condition of clothing excellent. Barracks clean and well cared for. The basements, in which are quartered about 500 members, are damp and not suitable for barracks.

Two hundred and fifty members had been admitted since June 30, and 252 had been discharged, a net loss of 2. There were 340 vacant beds in barracks and 34 in the hospital. This Branch is overpopulated.

#### DISCIPLINE.

The principal offenses committed were drunkenness, absence without leave, drunk and having whisky, and absence without leave while under sentence. Total number of arrests, 1,063; trials for drunkenness, 342; for absence without leave, 286. Total number of members offending, 524, or about 20 per cent of the average number present. For the preceding year this percentage was 16. No members in confinement at date of inspection.

#### BAND.

There was an average of 20 musicians in the band, 2 members and 18 civilians. Total cost of the band, including subsistence and other allowances to civilian musicians, \$9,478.79. Average monthly pay of leader, \$100; of members, \$15.80; of civilians, \$24.50.

#### LIBRARY.

At the close of the year the library contained 9,046 volumes, 627 of which had been added. No volumes were condemned or disposed of. Number of books read or circulated, 18,920. Twenty-two papers and 28 periodicals are subscribed for, and 75 papers (but no periodicals) are furnished without charge.

#### THEATER.

The performances in the theater cost \$5,109. Members of the Home are admitted free to all performances; others are charged 15 and 50 cents; \$452.60 was derived from this source.

#### BEER HALL, STORE, HOTEL, ETC.

Beer hall, store, hotel, and restaurant in excellent condition and apparently well managed.

#### RELIGIOUS SERVICES.

There are two chapels. The average attendance at regular services is about 400, or 200 at each chapel. This is about 14.2 per cent of the average number present at the Home.

#### FARM.

One hundred and twenty acres are under cultivation—80 as a farm and 40 as a garden for vegetables.

The Home keeps an average of 90 cows, which produced 58,757 gallons of milk, at a cost of 9.89 cents per gallon. At the nearest town the cost of milk per gallon by the quantity was 17.5 cents.

Value of farm stock on hand June 30, 1905, \$7,350.

Forty-eight farm hands were employed—10 members and 2 civilians on the farm, 5 members in the vegetable garden, 12 members and 9 civilians in the flower garden, and 10 members in teaming.

*Value of farm and vegetable products for the year.*

Apples -----	\$232. 70	Milk -----	\$9, 988. 69
Asparagus -----	38. 15	Onions -----	107. 58
Beans -----	218. 11	Do -----	2. 50
Beets -----	7. 70	Radishes -----	52. 66
Cabbage -----	232. 49	Rhubarb -----	42. 12
Carrots -----	6. 50	Spinach -----	83. 86
Cauliflower -----	7. 08	Tomatoes -----	318. 98
Corn, green -----	63. 89	Turnips -----	18. 23
Flowers -----	1, 138. 50	Pepper pods -----	2. 40
Grapes -----	217. 18	Alfalfa -----	833. 00
Lettuce -----	141. 45		
Kohl-rabi -----	10. 18	Total -----	13, 764. 04

There are 4 dump carts, 2 carriages, 2 ambulances, 18 farm wagons, and 1 spring wagon, all used in the public business of the Home. The regular army allowance is fed to horses and mules. Animals were not carefully shod, and harness not well cared for.

Value of farm and vegetable products:

Turned into commissary -----	\$11, 792. 25
Fed to stock -----	833. 00
Sold -----	237. 65

12, 862. 90

No separate account is kept at this Branch of the cost of maintaining the farm, lawn, and flower garden, and teams.

Appropriation for maintenance of farm, \$18,000.

TREASURER.

GENERAL FUND.

The receipts of the general fund were: By transfer, \$397,750; from sales and other sources, \$9,030.47; total, \$406,780.47. The expenditures amounted to \$394,765, of which \$276,103.81 was disbursed by check, and \$118,661.19 in currency.

Received on account of posthumous fund, \$2,478.69; disbursed, \$1,491.12.

No improvements (not repairs) were made. The changes in buildings consisted of removing the frame structure from rear of hospital and replacing it with a brick structure, and inclosing part of the third-story porch of the hospital. The cost of repairs (not construction) amounted to \$46,840.45. The repairs consisted principally, of putting steel ceilings in 4 barracks, painting the brickwork of barracks and mess hall, painting officers' quarters, granolithic floors in buildings, artificial stone curbing on roads, new bake oven and chimney, boiler and smokestack for greenhouse, and three cisterns.

Two hundred and fifty-five open-market purchases were made, amounting to \$8,367.31. They consisted of fresh vegetables and fruit, chickens, navy beans, evaporated peaches, etc.; paints, oils, etc.; electric lamps, etc.; corn meal, sugar, etc.; chloride calcium, etc.; ranges, refrigerators, Fairbanks' scales, window glass, etc.; brooms, brushes, etc.; lum ; tile, etc.; gin, etc.; boiler inspection, transportation of funds, advertising, farm seeds, office supplies, professional services, pla ones, and sundries.

The following were the contract prices of the principal articles of food purchased during the last quarter of the fiscal year:

Articles.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds..	113,826	\$0.0240	Leavenworth, Kans.
Fresh beef.....do..	104,427	.0639	Kansas City, Kans.
Corned beef.....do..	14,400	.0427	Do.
Bacon.....do..	6,123	.0985	Do.
Salt pork.....do..	3,000	.0611	Do.
Fresh fish.....do..	7,871	.1048	Leavenworth, Kans.
Codfish.....do..	1,948	.061	St. Louis, Mo.
Salt mackerel.....do..	10,800	.071	Do.
Coffee.....do..	20,898	.1025	Kansas City, Mo.
Tea.....do..	45	.25	Baltimore, Md.
Potatoes.....bushels..	3,207	.579	Leavenworth, Kans.
Navy beans.....pounds..	10,931	.0325	Do.
Lima beans.....do..	3,249	.0575	Do.
Ham.....do..	6,398	.105	Topeka, Kans.
Butterine.....do..	24,120	.10	Kansas City, Kans.
Sirup.....gallons..	271	.24	Leavenworth, Kans.
Cheese.....pounds..	4,162	.1439	Do.
Sugar, A.....do..	8,575	.061	Do.
Sugar, granulated.....do..	28,310	.0625	Do.

There are authorized as employees 7 officers, 39 noncommissioned officers, 491 members, and 136 civilians, while there were actually employed a daily average of 7 officers, 39 noncommissioned officers, 485 members, and 85 civilians. Their average daily pay was: Officers, \$5.16; noncommissioned officers, 58 cents; members, 35 cents; civilians, \$1.24. Their pay amounted to \$120,303.37. A daily average of 94 members worked without pay, and were engaged in policing the Home grounds and buildings and working in the commissary department.

Average cost of maintenance per capita, \$158.23, as compared with \$152.15 for the preceding year, an increase of \$6.08.

#### POST FUND.

The employees authorized are 40 members and 16 civilians, while the average number actually employed was 38 members and 14 civilians, whose pay amounted to \$8,469.88.

Cash on hand July 1, 1905, \$19,158.31, as compared with \$13,103.80 at the beginning of the year. Stock and fixtures on hand at the close of the year were valued at \$1,071.81 less than at the beginning of the year.

A net profit of \$21,226.63 was reported under this fund.

#### PENSION FUND.

On June 30, 1905, there were 3,799 pensioners on the rolls, all of whom were reported as present on that date.

Amount due pensioners July 1, 1904.....	\$13,297.65
Amount received during the year.....	493,778.19
<b>Total .....</b>	<b>507,075.84</b>
Amount disbursed, currency .....	\$317,874.07
Amount disbursed by check.....	169,575.43
<b>.....</b>	<b>487,449.50</b>
<b>Balance due pensioners July 1, 1905.....</b>	<b>19,626.34</b>

The pensioners were receiving sums ranging from \$6 to \$30 per month, 13 receiving the larger amount. Ninety-seven of them had balances of more than \$100 to their credit, 32 had ~~on~~ \$100 and



# NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. 251

\$500, 3 had between \$500 and \$1,000, and 1 had more than \$1,000. Three clerks were engaged on pension business at salaries of \$1,000, \$300, and \$240, respectively.

## RECAPITULATION.

Total balance July 1, 1904.....		\$53,841.46
Received from general treasurer.....	\$397,750.00	
Received from other sources.....	9,030.47	
		406,780.47
Received from post fund.....		66,826.95
Received from pension fund.....		493,778.19
		<hr/>
Total .....		1,021,227.07
Disbursed, general fund.....	394,765.00	
Transferred, general fund.....	11,774.71	
		406,539.71
Disbursed, post fund.....		60,772.44
Disbursed, pension fund.....		487,449.50
Balance June 30, 1905.....		66,465.42
		<hr/>
Total .....		1,021,227.07

## QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....		\$134,396.81
Received from general depot.....		49,123.68
Received by purchase.....		261,156.52
Received by transfer.....		710.65
		<hr/>
Total .....		445,387.66
Dropped by board of survey.....	\$2,907.25	
Dropped by inspector.....	38,638.41	
		<hr/>
		41,545.66

The items "Dropped by board of survey" and "Dropped by inspector" take no account of issues of perishable supplies under the several heads of expenditure. The quartermaster's accounts are kept by articles instead of by money values. For these reasons the balance on hand June 30, 1905, could not be reported.

The following classes of property, in the amounts named, were received from the depot:

Current expenses.....	\$1,104.16
Subsistence .....	1,914.80
Household .....	6,661.08
Hospital .....	309.52
Clothing .....	29,134.12

Following is a statement of the clothing accountability:

On hand July 1, 1904:	
In stock and awaiting condemnation.....	\$20,863.01
Issued to members.....	32,391.04
	<hr/>
	53,254.05
Received from depot.....	39,134.12
Received from other sources.....	686.22
	<hr/>
	93,074.39
Inspected, condemned, and expended.....	35,939.59
	<hr/>
On hand July 1, 1905:	
In stock and awaiting condemnation.....	17,302.31
Issued to members.....	39,832.49
	<hr/>
	57,134.80

Seventeen men are employed in the laundry, which was conducted at a cost of \$2,190 for labor and \$3,376.42 for material. There is no limit to the amount of laundry work allowed to each member.

During the year  $2\frac{1}{2}$  acres of land were purchased, bringing the area of the reservation up to  $642\frac{1}{2}$  acres. There are 14 barracks, all of brick, with metal roofs. Thirteen of the barracks were originally intended for 144 men each, and 1 for 150. On June 30 the average number of men occupying them was 164. No men were sleeping on floors. The average dormitory air space per man is 627 cubic feet. Urinals insufficient; measures have been taken to increase the number.

#### SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$2,881.58. None had been condemned.

The dining hall has a seating capacity of 1,116. A daily average of 17 men were employed in the kitchen and 80 in the dining room.

Average cost of a ration per day, including fruit, vegetables, and milk produced on the Home grounds, 16.24 cents. Last year it was 15.84 cents.

Average cost of a hospital ration per day, including extra diet, 17.94 cents. Last year it was 16.91 cents.

Garbage to the estimated monthly weight of 60,000 pounds was produced. The year's product was sold for \$624.

No record of the shop accounts is kept at this branch by values; only labor and quantities of material are considered in the accounts.

It was reported that the following articles were used in the fabrication of 532,689 pounds of bread, 7,210 pounds of buns, 13,692 pounds of cake, and 24,927 pies, to wit:

Apples, canned-----pounds--	5, 633	Mince-meat -----pounds--	3, 413
Apples, dried -----do-----	1, 314	Molasses -----gallons--	334
Allspice -----do-----	21	Peaches, dried-----pounds--	300
Apricots, dried-----do-----	200	Peaches, canned-----do-----	3, 038
Cider, boiled -----gallons--	73	Raisins -----do-----	68
Cinnamon -----pounds--	17	Salt, common -----do-----	6, 687
Currants -----do-----	393	Soda, bicarbonate-----do-----	100
Eggs -----do-----	1, 616	Sugar, A grade-----do-----	15, 181
Flour, graham -----do-----	11, 170	Sugar, granulated-----do-----	50
Flour, wheat-----do-----	420, 822	Sirup -----gallons--	63
Ginger -----do-----	89	Vinegar -----gallon--	1
Lard -----do-----	4, 345	Yeast -----do-----	1, 314

#### ENGINEER DEPARTMENT.

The sewerage and drainage system consists of sewer pipes sunk to the proper depth and covered. They empty into the Missouri River a half mile from the buildings.

The steam plant cost \$30,724 and was maintained at a cost of \$52,238.

Cost of maintenance of lighting plant, \$10,657.48. There are 30 arc lights and 1,980 incandescent lights.

Six hundred and forty-six tons of ice were manufactured, at a cost of \$1 per ton.

**FIRE DEPARTMENT.**

The fire organization consists of 180 members and 30 civilians, all under charge of the chief engineer. No fires occurred. The theater should be provided with fire curtain and with standpipe and hose on upper gallery of stage.

**MEDICAL DEPARTMENT.**

The sick on June 30, 1905, were: In hospital, 247; none in convalescent quarters.

The hospital has a capacity for 293 patients, and there is 1 barrack for convalescents, capacity 124. Total number admitted to hospital, 801; daily average of patients in hospital, 264.

The principal diseases and the percentage of each to the whole number of cases were: Hemiplegia, 8.84; valve lesions of the heart, 8.26; rheumatism, 7.34; gastritis, 5.05; dementia, 4.1; pulmonary tuberculosis, 3.9; hypertrophy of prostate, 3.9; chronic nephritis, 3.9; asthma, 3.5; epithelioma, 3.34.

Sixteen members were sent to insane asylums.

Total number of deaths, 286—235 in hospital and 51 elsewhere. Died from natural causes, 280; from other causes, 6.

Average age at death, 67.03 years, as compared with 67.89 for the preceding year.

Death rate per thousand of the average present and absent, 69.57 years.

During the year 219 members were buried in the Home cemetery, making the total number interred there 2,744. The capacity of the cemetery is reported as unlimited.

Average daily number of employees: Members, 94; civilians, 23; female nurses, 10. Their pay amounted to \$25,366.83.

Number of drugs, preparations, etc., used in the dispensary, 387; amount expended for drugs, \$3,075.75; for appliances, \$5,765.57.

Patients in hospital are not properly segregated. Roof of hospital leaking.

**SPECIAL NOTICE.**

The affairs of this Branch generally were in a very satisfactory condition.

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**No. 7.—Report of Inspection of the Danville Branch, made September 18 to 21, 1905.**

*Post-office.*—National Home, Danville, Ill.

*Local manager.*—Gen. Thomas J. Henderson, of Princeton, Ill. His term of office expires in 1908.

**OFFICERS.**

At date of inspection the officers of the Branch were: Governor, Col. Isaac Clements; treasurer, Maj. Martin J. Barger; surgeon, Maj. Daniel C. Jones; quartermaster, Capt. Edward B. Wheeler; chaplains, Rev. Stephen N. Moore and Rev. Thomas A. Parker. The

following changes in officers occurred: Rev. Melchoir Auer, Protestant chaplain, died December 27, 1904, and Rev. Thomas A. Parker was appointed in his stead; Rev. Stephen M. Moore, appointed Catholic chaplain December 8, 1904.

## POPULATION.

On June 30, 1905, there were present and absent 3,151 officers and members, as against 3,363 on June 30, 1904, a loss of 212.

Average present, 2,417; average absent, 874; total, 3,291. Highest number present any one day, 2,695, on March 1, 1905. Lowest number present any one day, 2,083, on May 1, 1905.

Average temporarily cared for, 13; total number cared for, 4,314.

Average age of members to June 30, 1905, 63.79 years; of those who served in the civil and prior wars, 65.08 years; of those who served in the Spanish and subsequent wars, 36.11 years. Last year these averages were, respectively, 63.78, 64, and 44 years.

*Casualties in membership.*

Gain:		
By first admission .....	582	
By readmission .....	295	
By transfer from other Homes .....	74	
		951
Loss:		
By transfer to other Homes .....	357	
By discharge .....	396	
By dishonorable discharge .....	22	
By dropped from rolls .....	158	
By death .....	220	
By sent to insane asylums .....	10	
		1,163
Net loss .....		212

*Return of persons in camp on September 21, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families .....	2	10	4
Members' families .....	0	1	1
Civilian employees' families .....	0	6	6
Total .....	2	17	11

*Inspection and review, September 21.*

	Present in camp.							Absent.			
	Present at inspection.			Absent from inspection.				Total present.	With leave.	Without leave.	Total present and absent.
	In line.	Standing or sitting.	Total.	Sick.	Extraduty.	Excused.	Total.				
Officers .....	7		7	0	0	0	0	7	0	0	7
Noncommissioned officers .....	38		38	0	0	0	0	38	1	0	39
Members .....	1,044		1,044	203	418	552	1,173	2,217	870	49	3,136
Temporary .....	15		15	0	0	0	0	15	0	0	15
Band .....	23		23	0	0	0	0	23	0	0	23
Total .....	1,127		1,127	203	418	552	1,173	2,300	871	49	3,220

Clothing of many members dirty.

Since June 30, 257 members had been admitted, and 228 had been discharged, a net gain of 29.

#### DISCIPLINE.

The principal offenses committed were drunkenness, bringing intoxicating liquors into the Home grounds, disorderly conduct, and absence without leave. Total number of arrests, 768; trials for drunkenness, 309; for absence without leave, 85. Total number of members offending, 485, which was 20 per cent of the average present. During the preceding year this percentage was 27. No members in confinement at date of inspection. The band and some of the companies were not ready for inspection, and when the inspector, accompanied by the company commander, entered the wards their presence was ignored by the members.

#### LIBRARY.

At the close of the fiscal year the library contained 1,612 volumes, of which 515 had been added during the year. Thirty-five thousand volumes were read or circulated. Forty-nine newspapers and 47 periodicals are subscribed for. None of either are furnished free. No books were disposed of.

#### BAND.

The band is composed of 25 members—1 member of the Home and 24 civilians. Total cost, including subsistence and other allowances of civilians, \$10,430.23. Average monthly pay of leader, \$125; of member, \$17.50; of civilians, \$30.62.

#### THEATER.

Expenses for performances in the theater amounted to \$7,125. Members are admitted free to all performances; others pay 5 and 10 cents; \$145.45 was received from this source.

#### BEER HALL, STORE, ETC.

Beer hall too small. Checks are taken up by the barkeeper and no verification made. No hotel. A restaurant is maintained near the car station, premises about which were not well policed. Store apparently well managed; windows of store not protected by bars.

#### RELIGIOUS SERVICES.

There is a Protestant and a Catholic chapel. Attendance at regular services averaged about 200 each, or 16.5 per cent of the average number of members present.

#### FARM.

Fifty acres of hay were harvested. No vegetable garden cultivated. This branch has no cows. Milk is purchased at 16 cents per gallon.

Value of farm stock on hand June 30, 1905, \$1,950.

Fifty-three farm hands are employed—25 members and 1 civilian on the farm, 15 members in the flower garden, and 12 members in teaming. The only farm product was 50 tons of hay, valued at \$400.

There were on hand 2 ambulances, 4 dump carts, 8 farm wagons, and 13 horses. The allowance of forage for each horse is 6 pounds of grain and 14 pounds of hay per day. Stalls at stables should be provided with suitable floors, and the stables properly drained.

Value of farm products:

Fed to stock .....	\$381. 46
Sold .....	18. 54
	<hr/> 400. 00

Cost of maintaining:

Farm proper .....	2, 336. 19
Lawn and flower garden .....	4, 081. 67
Transportation and teams .....	3, 431. 50
	<hr/> 9, 849. 36

Amount appropriated for farm, \$11,900.

TREASURER.

GENERAL FUND.

The receipts of the general fund were: by transfer, \$377,431.28; from sales and other sources, \$6,193.12; total, \$383,624.40. The expenditures amounted to \$361,724.81, all of which was expended by check.

Received on account of posthumous fund, \$2,133.16; expended, \$904.31.

The only improvements made consisted of additions to the hospital, at a cost of \$48,381.28. The cost of repairs (not construction) amounted to \$33,521.60.

Three hundred and forty-six open-market purchases were made, aggregating \$20,344.54. These purchases were made under each of the subheads of appropriation except transportation.

The following were the contract prices of the principal articles of food for the last quarter of the fiscal year:

Articles.	Amount purchased.	Cost.	Where purchased.
Flour .....	pounds. 96,040	\$0.0296	Danville, Ill.
Fresh beef .....	do. 74,000	.0608	Chicago, Ill.
Corned beef .....	do. 12,000	.0448	Do.
Bacon .....	do. 14,000	.0959	Do.
Salt pork .....	do. 3,000	.0622	Do.
Fresh fish .....	do. 6,000	.085	Do.
Codfish .....	do. 2,400	.0495	Danville, Ill.
Salt mackerel .....	do. 6,000	.075	Chicago, Ill.
Coffee .....	do. 13,500	.1125	Do.
Tea .....	do. 1,360	.235	Do.
Potatoes .....	bushels. 135,000	.59	Sheridan, Wis.
Navy beans .....	pounds. 8,600	.031	Danville, Ill.
Lima beans .....	do. 1,200	.0525	Chicago, Ill.
Ham .....	do. 12,000	.091	Peoria, Ill.
Butter .....	do. 2,860	.244	Chicago, Ill.
Butterine .....	do. 16,400	.1135	Do.
Sirup .....	gallons. 250	.26	Do.
Cheese .....	pounds. 2,200	.13	Danville, Ill.
Sugar, A .....	do. 20,000	.057	Do.
Sugar, granulated .....	do. 3,000	.061	Do.

There are authorized as employees 7 officers, 38 noncommissioned officers, 390 members, and 47 civilians, which number was employed daily. Their average daily pay was: Officers, \$5.21; noncommis-

sioned officers, 61 cents; members, 30 cents; civilians \$1.59. Their aggregate pay for the year was \$96,326.25. An average of 31 worked without pay, and were employed as waiters and scullions.

Average per capita cost of maintenance, \$142.56, as against \$142.15 for the preceding year, an increase of 41 cents.

## POST FUND.

The employees authorized are 28 members and 11 civilians, while a daily average of 25 members and 11 civilians were actually employed. Their pay aggregated \$7,780.16.

The cash on hand July 1, 1905, was \$8,194.48, as compared with \$6,738.62 at the beginning of the year. The stock and fixtures on hand at the close of the year were valued at \$35.76 less than at the beginning of the year.

A net profit of \$1,491.62 was reported for the year.

## PENSION FUND.

Number of pensioners on rolls June 30, 1905, 2,909, all of whom were reported as present at the Home on that date.

Amount due pensioners July 1, 1904.....	\$2, 671. 97
Amount received during the year.....	411, 605. 62
Total.....	414, 277. 59
Amount disbursed, currency.....	\$315, 743. 37
Amount disbursed by check.....	96, 868. 22
	412, 111. 59
Balance due pensioners July 1, 1905.....	2, 166. 00

The pensioners were receiving sums ranging from \$6 to \$30 a month, 9 receiving the last-named sum. Thirty-six of them had balances of less than \$100 to their credit, 5 had between \$100 and \$500, and none had more than \$500. Two clerks are employed on pension business at salaries of \$300 a year each.

## RECAPITULATION.

Total balance July 1, 1904.....	\$32, 300. 97
Received from general treasurer.....	\$377, 431. 28
Received from other sources.....	6, 193. 12
	383, 624. 40
Received from post fund.....	41, 951. 22
Received from pension fund.....	411, 605. 62
Total .....	869, 482. 21
Disbursed, general fund.....	\$361, 724. 81
Transferred, general fund.....	15, 400. 25
	377, 125. 06
Disbursed, post fund.....	40, 495. 36
Disbursed, pension fund.....	412, 111. 59
Balance June 30, 1905.....	39, 750. 20
Total .....	869, 482. 21

## QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....	\$137,750.17
Received from general depot.....	30,451.08
Received by purchase.....	192,259.10
Received by transfer.....	1,247.75
Total.....	361,708.10
Dropped by board of survey.....	\$2,844.71
Dropped by inspector.....	33,664.47
	36,509.18
Balance on hand June 30, 1905.....	325,198.92

Following classes of property were received from the depot:

Current expenses.....	\$517.73
Subsistence.....	1,077.78
Household.....	868.11
Hospital.....	1,983.10
Clothing.....	26,004.36

Following is a statement of the clothing accountability:

On hand July 1, 1904:	
In stock and awaiting condemnation.....	\$15,357.83
Issued to members.....	58,873.54
	74,231.37
Received from depot.....	26,004.36
Received from other sources.....	1,247.75
	101,483.48
Inspected, condemned, and expended.....	32,033.84
On hand July 1, 1905:	
In stock and awaiting condemnation.....	13,015.12
Issued to members.....	56,434.52
	69,449.64

Sixteen men are employed in the laundry, which was conducted at a cost of \$2,430 for labor and \$1,234.45 for material. Each member is allowed each week 1 shirt, 1 pair of drawers, and 2 pairs of stockings.

The barracks were, in the aggregate, originally intended to accommodate 2,435 men; 1,995 were occupying them. The average dormitory air space per man is 1,070 cubic feet.

## SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$1,886.32. Stores to the value of \$936.44 were condemned, none of which were sold.

Capacity of dining hall, 1,120; average number of men employed in kitchen, 36; in dining hall, 65.

Average cost of a ration per man per day, 15.15 cents. For the preceding year it was not stated.

Average cost of a hospital ration per man per day, including extra diet, 20.59 cents. Not reported last year.

An estimated monthly average of 60,000 pounds of garbage was produced. It was sold under contract and brought \$479.65. Garbage hoppers should be emptied more often and should be kept clean.



Following is a statement of the flour issued, and articles fabricated therefrom:

	Flour is- sued.	Fabri- cated.
	<i>Pounds.</i>	<i>Pounds.</i>
Bread.....	333,393	466,748
Cake.....	9,423	15,338
		<i>Number.</i>
Pies.....	10,301	25,519

The following additional articles were used in these fabrications:

Allspice -----pounds--	51	Corn meal -----pounds--	3,720
Apples, canned-----do----	18,319.5	Mince-meat -----do----	5,797
Cinnamon -----do-----	37	Molasses -----gallons--	317
Cloves -----do-----	4	Nutmegs -----pounds--	19½
Cream, evaporated.gallons--	87	Peaches, canned-----do----	5,292
Cream of tartar----pounds--	91	Powder, baking -----do----	14
Currants -----do-----	691	Raisins -----do-----	679
Eggs -----dozens--	296	Salt -----do-----	3,739
Extracts, flavoring--pints--	1.5	Soda, bicarbonate -----do----	217½
Sugar, A -----pounds--	7,089	Flour, graham -----do----	9,330
Ginger -----do-----	103.5	Yeast-----do-----	809
Lard -----do-----	77.5		

#### SHOPS.

Following is a statement of the value of the property, supplies, or stores issued to each shop, and the amount paid for services in each:

	Material.	Services.	Total.
Printing office.....	\$185.76	\$360.00	\$545.76
Repair shop.....	11,663.87	7,122.00	18,785.87
Shoe shop.....	963.10	480.00	1,443.10
Tailor shop.....	112.68	1,440.00	1,552.68
Total.....	12,975.41	9,402.00	22,407.41

#### ENGINEER DEPARTMENT.

Water is supplied by the Danville city waterworks. There is a gravity system of sewerage in good condition.

The steam plant cost \$80,000; cost of annual maintenance. \$34,523.19.

There is no lighting plant, light being furnished by the Danville Electric Lighting Company, under contract. There are 30 arc and 3,316 incandescent lights.

Ice is purchased under contract at \$4 per ton; 1,099 tons were purchased.

A suitable house for storage of oil and powder is needed. House now in use for storage of oil is an old dilapidated wooden building, badly located and wholly unfit for the purpose. The morgue is used as armory and powder house.

#### FIRE DEPARTMENT.

Organization and equipment for protection against fire appear adequate, except on stage of theater. The fire hose in the various buildings is never . This is believed to be bad policy. There was no loss by fi

## MEDICAL DEPARTMENT.

On June 30, 1905, the sick were: In hospital, 199; in convalescent companies, 87; at sick call, 66.

The hospital has a capacity for 200 patients, and there are quarters for 150 convalescents. Total number admitted to hospital, 1,005; daily average of patients in hospital, 199.68.

The principal diseases and percentage of each to the whole number of cases were: Rheumatism, 0.074; malarial fevers, 0.05; heart disease, 0.044; cystitis, 0.029; pneumonia, 0.029.

Ten members were sent to insane asylums.

Total deaths, 220—190 in hospital and 30 elsewhere. Two hundred and fifteen died from natural causes and five from other causes.

Average age of members at death, 67.28 years, as compared with 65.80 for the previous year.

Death rate per thousand of the average present and absent, 66.99.

One hundred and forty-eight members were buried in the Home cemetery. Total number interred there, 531. Capacity of cemetery, 2,112 graves. There are about 100 graves in an old cemetery. They should be removed to the cemetery now in use.

Average number of hospital employees: Members, 89; civilians, 18; female nurses, 8. Their pay aggregated \$20,095.25. Number of drugs, preparations, etc., used in dispensary, 850; amount expended for drugs, \$8,425.42; for appliances, \$944.84.

Dispensary used at sick call untidy and not clean.

Windows of storerooms where liquors are kept not protected by bars.

Facilities for washing dishes in hospital inadequate.

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**No. 8.—Report of Inspection of the Mountain Branch, made September 23 to 27, 1905.**

*Post-office.*—National Soldiers' Home, Tennessee.

*Local manager.*—Col. Walter P. Brownlow, of Jonesboro, Tenn. His term of office expires in 1908.

## OFFICERS.

Following were the officers at date of inspection: Governor, Col. John P. Smith; treasurer, Maj. Paul E. Divine; quartermaster, Capt. W. E. F. Milburn; adjutant and inspector, Capt. Charles W. Wadsworth; chaplains, Rev. James A. Ruble, Rev. W. F. Gottwallen. During the year Maj. F. P. Robinson, surgeon, resigned. Dr. E. T. West was appointed to succeed him. At date of inspection the governor, Colonel Smith, was absent. He was accompanying the board of managers on their tour of inspection.

## POPULATION.

There were 1,133 officers and members present and absent on June 30, 1905, as compared with 302 on June 30, 1904, a gain of 831.

# NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. 261

Average number present, 698; average absent, 129; total, 827. Highest number present any one day, 967, on May 16, 1905. Lowest number present any one day, 220, on July 5, 1904.

Total number cared for, 1,592; daily average number temporarily cared for, 10.

Average age of members to June 30, 1905, 61.5 years; of those who served in the civil and prior wars, 64.2 years; of those who served in the Spanish and subsequent wars, 32.4. For the preceding year these averages were, respectively, 61.34, 64.14, and 34.12 years.

## *Casualties in membership.*

### Gain:

By appointment, officer.....	1
By first admission.....	416
By readmission.....	208
By transfer from other homes.....	665
	<u>1,290</u>

### Loss:

By resignation, officer.....	1
By transfer to other homes.....	36
By discharge.....	318
By dishonorable discharge.....	6
By dropped from rolls.....	38
By death.....	60
	<u>459</u>

Net gain ..... 831

*Return of persons in camp September 26, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families.....	0	6	4
Civilian employees' families.....	2	2	1
Total.....	<u>2</u>	<u>8</u>	<u>5</u>

## *Inspection and review, September 26.*

	Present in camp.							Absent.			Total present and absent.	
	Present at inspection.			Absent from inspection.				Total present.	With leave.	Without leave.		
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.					
Officers.....	4		4	0	0	0	0	4	2	0	2	6
Noncommissioned officers.....	18		18	0	0	0	0	18	0	0	0	18
Members.....	462		462	108	259	77	544	1,066	223	12	235	1,241
Temporary.....	17		17	0	0	0	0	17	0	0	0	17
Band.....	18		18	0	0	0	0	18	0	0	0	18
Total.....	519		519	108	259	77	544	1,063	225	12	237	1,300

At review and inspection officers were not uniformly dressed, and many members appeared in dirty and badly worn clothing.

Since June 30, 192 members had been admitted and 163 discharged, a gain of 29.

**DISCIPLINE.**

The principal offenses committed were bringing intoxicating liquors within the Home, drunkenness, disorderly conduct, and absence without leave. Total number of arrests, 188; trials for drunkenness, 18; for absence without leave, 30. Total number of offenders, 150, or about 21.4 per cent of the average number present. The percentage was 27.35 for the preceding year. No members were in confinement at date of inspection.

**LIBRARY.**

The library building, a very attractive one, was a gift from Mr. Carnegie. At the close of the fiscal year there were 5,127 volumes, of which 4,830 had been added. None were condemned or destroyed. No papers or periodicals are subscribed for. Three newspapers are furnished free, but no periodicals. Number of books read or circulated, 1,136. With the beer hall in successful operation a liberal supply of papers and periodicals should be provided. The books are not catalogued, and members are permitted to remove books from the shelves.

**BAND.**

There are 18 musicians in the band—1 member and 17 civilians. Total cost for the year, including subsistence and other allowances of civilians, \$7,264.69. Average monthly pay of leader, \$100; of member, \$20; of civilians, \$24.14.

**THEATER.**

A theater building is in course of construction.

**BEER HALL.**

There is a beer hall in successful operation. There is no store, hotel, or restaurant.

**RELIGIOUS SERVICES.**

There is a double chapel, with accommodations for both Catholics and Protestants. Average attendance at regular services: Protestants, 150; Catholics, 75; total, 225, or about 32.2 per cent of the average number present; this being by far the largest percentage of attendance at any of the Branches.

**FARM.**

Eighty-three acres are under cultivation—80 as a farm and 3 as a vegetable garden.

The construction of a cow barn had just been begun. There are 40 cows, which produced 12,792 gallons of milk at a cost of 16.6 cents per gallon. In the nearest town milk sells by the quantity at 17 cents per gallon. Twenty of the cows were purchased in May and June, or just before the close of the fiscal year, and therefore had not had time to produce much milk.

Value of farm stock on hand June 30, 1905, \$5,532.20.

Forty-one farm hands are employed—16 members and 4 civilians on the farm, 8 members and 1 civilian in the vegetable garden, 2 members in the flower garden, and 10 members in teaming.

*Value of farm and vegetable products.*

Apples -----	\$3. 75	Radishes -----	\$49. 00
Beans -----	19. 75	Tomatoes -----	28. 00
Beets -----	9. 78	Wood -----	140. 00
Cabbage -----	136. 84	Greens -----	17. 49
Corn -----	41. 45	Cauliflower -----	7. 02
Lettuce -----	4. 96	Corn -----	506. 25
Milk -----	2, 132. 00	Oats -----	250. 00
Onions -----	39. 60	Hay -----	480. 00
Onions, green -----	62. 40	Fodder -----	60. 00
Peas -----	3. 48		
Pumpkins -----	6. 82	Total -----	3, 996. 59

There are 5 horses, 5 mules, 1 ambulance, 1 delivery wagon, 1 cart, 3 farm wagons, 1 stone spreader, and 1 sprinkler, all used in public work. The allowance of forage is 12 pounds of grain and 14 pounds of hay for each horse, 9 pounds grain and 14 pounds hay for each mule. Each animal has also 50 pounds of bran per month.

In addition to the herd of 40 cows there is 1 bull and 7 calves.

Stables are badly ventilated, a result of faulty construction. Floors of stalls rough and uneven and not kept clean. Shoeing of public animals not carefully supervised.

Value of farm and vegetable products:

Turned into commissary -----	\$2, 700. 54
Fed to stock -----	1, 296. 25
Sold -----	77. 75
	<u>4, 074. 54</u>

Cost of maintaining:

Farm proper -----	6, 073. 62
Lawn and flower garden -----	2, 476. 91
Transportation and teams -----	2, 140. 00
	<u>10, 690. 53</u>

No specific amount was appropriated for farm at this Branch. The appropriation was not divided into subheads.

TREASURER.

GENERAL FUND.

The receipts of the general fund under the appropriation for "Maintenance" were: By transfer, \$307,879.15; from sales and other sources, \$3,174.76; total, \$311,053.91. The expenditures amounted to \$289,951.39, of which \$207,991.40 was paid by check, and \$81,959.99 in currency. Received on account of posthumous fund, \$983.48; disbursed, \$111.07.

The improvements (not repairs) made were a sewage-disposal plant and a band stand, the two costing \$16,964.90. The cost of repairs (not construction) was \$15,838.93. As this Branch Home has been in operation only a few years, and has yet but a small membership, the cost of repairs (not construction) appears unusual.

There were 132 open-market purchases which cost in the aggregate \$6,317.64. These purchases consisted of cows, fresh vegetables, oleo-margarine, eggs, and an adding machine.

The following were the contract prices of the principal articles of food purchased during the last quarter of the fiscal year:

Articles.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds..	21,560	\$0.0316	Bristol, Tenn.
Fresh beef.....do..	38,992	.0093	Chicago, Ill.
Corned beef.....do..	2,400	.042375	Kansas City, Kans.
Bacon.....do..	4,359	.10	Chicago, Ill.
Salt pork.....do..	307	.072	Do.
Fresh fish.....do..	1,050	.125	Johnson City, Tenn.
Coffee.....do..	2,645	.09875	Indianapolis, Ind.
Tea.....do..	150	.25	Chicago, Ill.
Potatoes.....bushels..	1,200	.65	Sheridan, Wis.
Navy beans.....pounds..	2,500	.03	Johnson City, Tenn.
Lima beans.....do..	1,500	.0562	Chicago, Ill.
Ham.....do..	2,097	.105	Kansas City, Kans.
Butterine.....do..	2,688	.11	Chicago, Ill.
Sirup.....gallons..	100	.213	New York City, N. Y.
Cheese.....pounds..	1,000	.122	Chicago, Ill.
Sugar, A.....do..	13,296	.059	Johnson City, Tenn.

There are authorized as employees 7 officers, 26 noncommissioned officers, 339 members, 112 civilians, while the average daily employed was 6 officers, 14 noncommissioned officers, 255 members, 75 civilians. Their average daily pay was: Officers, \$4.32; noncommissioned officers, 96 cents; members, 29.5 cents; civilians, \$1.19. Their pay aggregated \$71,913.69. A daily average of 4 members worked without pay, being employed as laborers.

The average cost of maintenance per capita, as reported, was \$448.94. The appropriation was not divided into subheads at this Branch, as it is all provided under the general heading of "Maintenance," so construction and all other expenses are evidently included in the per capita cost.

#### POST FUND.

The employees authorized are 15 members, and an average of 11 were daily employed. Their pay amounted to \$551.67.

On July 1, 1905, the balance on hand was \$1,407.43, as compared with \$5,500 at the beginning of the year. There were no stock or fixtures on hand at the beginning of the year, while at its close these items amounted in value to \$2,302.64.

The net profit was \$3,216.07. The beer hall was not opened until February 3, 1905.

#### PENSION FUND.

Number of pensioners on rolls June 30, 1905, 1,035; number of pensioners present on that date, 821.

Amount due pensioners July 1, 1904.....	\$227. 55
Amount received during the year.....	94, 353. 93
Total.....	94, 581. 48
Amount disbursed, currency.....	\$68, 852. 48
Amount disbursed by check.....	23, 477. 98
	92, 330. 46
Balance due pensioners.....	2, 251. 02

The pensioners were receiving sums ranging from \$6 to \$40 per month, only 1 receiving the larger amount. Seventy-seven of them had balances of less than \$100 each to their credit, and 1 had between \$100 and \$500. None had any larger amounts. The work pertaining to pension business is performed by 2 clerks, at salaries of \$900 each.

## RECAPITULATION.

Total balance July 1, 1904.....		\$50,498.52
Received from general treasurer.....	\$307,879.15	
Received from other sources.....	3,174.76	
		<hr/> 311,053.91
Received from post fund.....		13,959.49
Received from pension fund.....		94,353.93
		<hr/> 469,865.85
Total.....		469,865.85
Disbursed, general fund.....	\$289,951.39	
Transferred, general fund.....	21,964.72	
		<hr/> 311,916.11
Disbursed, post fund.....		15,383.44
Disbursed, pension fund.....		92,330.46
Balance June 30, 1905.....		50,235.84
		<hr/> 469,865.85
Total.....		469,865.85

## QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....		\$111,102.15
Received from general depot.....		29,750.88
Received by purchase.....		186,474.23
Received by transfer.....		12,694.66
		<hr/> 340,021.92
Total.....		340,021.92
Dropped by board of survey.....	\$1,158.02	
Dropped by inspector.....	5,184.06	
		<hr/> 6,342.08
Balance on hand July 1, 1905.....		333,679.84

Following classes of property were received from the depot:

Current expenses.....	\$758.91
Subsistence.....	1,486.10
Household.....	15,752.26
Hospital.....	143.99
Clothing.....	11,579.62

Following is a statement of the clothing accountability:

On hand July 1, 1904:	
In stock and awaiting condemnation.....	\$14,960.88
Issued to members.....	4,011.19
	<hr/> 18,972.07
Received from depot.....	11,579.62
Received from other sources.....	12,694.66
	<hr/> 43,246.35
Inspected, condemned, and expended.....	5,315.95
	<hr/> 37,930.40
On hand July 1, 1905:	
In stock and awaiting condemnation.....	18,545.80
Issued to members.....	19,385.10
	<hr/> 37,930.40

An average of 10 men were daily employed in the laundry, which was conducted at an expense of \$1,347.50 for labor, and \$138.60 for material.

There are 7 barracks, all of brick. Two of them were intended to accommodate 408 men each; the other 5 were intended for 200 men each. Three of the barracks were occupied by an aggregate of 744 men, and the other 4 barracks were unoccupied. Average dormitory air space per man, 750 cubic feet.

There is one brick storehouse of ample capacity and well suited to the needs of the Branch.

#### SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$2,035.43. Stores that cost \$68.23 were condemned, and such of them as were sold brought \$5.71.

The dining hall accommodates 1,120 men. An average of 29 men were employed in the dining room, and 21 in the kitchen.

Average cost of a ration, including vegetables, fruit, and milk produced on the Home grounds, 21.35 cents.

Average cost of a hospital ration, including extra diet, 22.46 cents.

Garbage to the estimated monthly weight of 12,000 pounds was produced. It sold for \$184.20. Garbage and slop hoppers left uncovered and not kept clean.

It was reported that in the fabrication of 137,583 pounds of wheat bread, 9,815 pounds of corn bread, 9,156 pounds of biscuit, 9,363 pounds of cake, and 10,043 pies, the following articles were used:

Apples, canned.....pounds.....	660	Milk, fresh.....gallons.....	89
Apples, evaporated.....do.....	1, 183. 25	Molasses.....do.....	84. 5
Cinnamon.....do.....	24. 25	Oleo.....pounds.....	6
Cottolene.....do.....	135	Peaches, evaporated.....do.....	50
Coke.....do.....	28, 500	Powder, baking.....do.....	68
Cream of tartar.....do.....	4. 5	Raisins.....do.....	71
Currants.....do.....	63	Salt.....do.....	1, 192. 5
Eggs.....dozens.....	203	Soda, bicarbonate.....do.....	51
Flour.....pounds.....	120, 481	Sugar, A.....do.....	1, 802. 5
Ginger.....do.....	19	Sugar, granulated.....do.....	378. 5
Lard.....do.....	2, 013. 5	Vegetables.....do.....	78. 5
Meal, corn.....do.....	2, 113	Yeast.....do.....	411. 12
Mince-meat.....do.....	2, 346		

#### SHOPS.

The various shops, except blacksmith, are in the laundry building. The old shack now used as a blacksmith shop should be replaced. The shops for cleaning and repair of clothing were behind in their work. Following is a statement of the value of property, supplies, or stores issued to each shop, and the amount paid for services in each during the year:

	Services.	Material.	Total.
Shoe shop.....	\$480.00	\$373.19	\$853.19
Bakery.....	755.00	4,761.45	5,516.45
Horseshoeing shop.....	180.00	130.00	300.00
Repair shop.....	5,972.50	4,829.80	10,802.30
Printing office.....	480.00	535.85	1,015.85
Tailor shop.....	730.00	34.14	764.14
Total.....	8,587.50	10,654.43	19,241.93



ENGINEER DEPARTMENT.

The system of drainage and sewerage consists of underground drains, which were in good condition. The sewage is taken care of satisfactorily by a sewage-disposal plant.

Cost of maintaining steam plant, \$31,616.66, including also the cost of the lighting and ice plants.

The lighting plant is included in the steam plant, with the addition of 1 switch board, 4 ammeters, and a volt meter and air compressor. There are 22 arc lights and 5,384 incandescent lights.

Two hundred and seventy-eight tons of ice were manufactured, at a cost of 60 cents per ton.

FIRE DEPARTMENT.

Organization and apparatus adequate. The surgeon's quarters were burned during the year. Loss estimated at \$3,000.

MEDICAL DEPARTMENT.

The sick on June 30, 1905, were: In hospital, 108; at sick call, 25. There are no quarters for convalescents. One set of barracks was specially constructed for this purpose, and is available for immediate use.

The hospital has a capacity for 200 patients, which could readily be increased to 250 by using as wards the ward dining rooms. Total patients admitted, 350; daily average, 90.

The principal diseases and percentage of each to the whole number of cases were: Chronic rheumatism, 6.5; cystitis, 3.25; pulmonary tuberculosis, 5; nephritis, 3; chronic bronchitis, 4.5.

No members were sent to insane asylums.

Total deaths, 60; 50 in hospital and 10 elsewhere. Fifty died from natural causes and 10 from unknown causes.

Average age at death, 65.3 years, as compared with 66 years for the preceding year.

Death rate per thousand of average number present and absent, 72.55.

Forty members were buried in the Home cemetery. Total number buried there, 46; capacity of cemetery, 8,167 graves.

Average number of hospital employees: Members, 28; civilians, 16; female nurses, 7. Their pay amounted to \$10,935.76.

Amount expended for drugs, \$2,301.15; for appliances, \$3,974.70. Number of drugs, preparations, etc., used in dispensary, 455.

Windows of liquor room not protected by bars.

SPECIAL MENTION.

This branch is new, and is not yet completed. Everything is modern and most attractive; but, considering the amount expended, the capacity is small, and much appears to have been sacrificed to architectural effect.

**No. 9.—Report of Inspection of the Southern Branch, made October 4 to 6, 1905.***Post-office.*—National Soldiers' Home, Va.*Local manager.*—Hon. Franklin Murphy, of Newark, N. J. His term of office expires in 1906.**OFFICERS.**

At date of inspection the officers of the Branch were: Governor, William Thompson; treasurer, B. A. Beeson; surgeon, John A. Johnston; quartermaster, John T. Hume; commissary of subsistence, Charles Candy; chaplain, Rev. Joseph H. Bradley. John H. Gifford, quartermaster, had resigned and was succeeded by John T. Hume.

**POPULATION.**

On June 30, 1905, there were 3,491 officers and members present and absent, as against 3,642 on June 30, 1904, a loss of 151.

Average present during the year, 2,616; average absent, 1,002; total present and absent, 3,618. Highest number present any one day, 2,776, on February 10, 1905; lowest number present any one day, 2,391, on June 30, 1905.

Daily average temporarily cared for, 13; total number cared for, 4,301.

Average age of members to June 30, 1905, 66.80 years; of those who served in the civil and prior wars, 67.06 years; of those who served in the Spanish and subsequent wars, 39.6 years. Last year the average age of all members was 65.76 years; of those who served in the Spanish and subsequent wars, 37.34 years.

*Casualties in membership.***Gain:**

By first admission.....	382
By readmission.....	194
By transfer from other Homes.....	83
	<hr/> 659

**Loss:**

By transfer to other Homes.....	125
By discharge.....	204
By dishonorable discharge.....	20
By dropped from rolls.....	138
By death.....	305
By transfer to Government Insane Asylum.....	18
	<hr/> 810

Net loss..... 151

*Return of persons in camp October 4, 1905, exclusive of officers, members, and civilian employees.*

	Males.	Females.	Children.
Officers' families.....	6	3	1
Members' families.....	2	2	1
Civilian employees' families.....	4	5	3
Total.....	<hr/> 12	<hr/> 15	<hr/> 5

*Inspection and review, October 4.*

	Present in camp.							Absent.			Total present and absent.	
	Present at inspection.			Absent from inspection.				Total present.	With leave.	Without leave.		
	In line.	Standing or sitting.	Total.	Sick.	Extra duty.	Excused.	Total.					
Officers.....	6		6	0	0	0	0	6	0	0	0	6
Noncommissioned officers.....	35		35	0	0	0	0	35	3	0	3	38
Members.....	1,534		1,534	379	519	35	933	2,467	982	3	985	3,452
Temporary.....	19		19	0	0	0	0	19	0	0	0	19
Band.....	22		22	0	0	0	0	22	0	0	0	22
Total.....	1,616		1,616	379	519	35	933	2,549	985	3	988	3,537

Condition of clothing, arrangement of baggage, cleanliness of barracks, and police of grounds not up to standard.

One hundred and ninety members had been admitted since June 30, and 184 discharged, a gain of 6. There were 260 vacant beds in barracks and 71 in hospital.

DISCIPLINE.

The principal offenses were drunkenness and absence without leave. Total number of arrests, 1,526; trials for drunkenness, 625; for absence without leave, 353. Total number offending, 1,371, or about 56.35 per cent of the average number present. Last year the percentage was 37.34. One member was in confinement at date of inspection.

LIBRARY.

There were 8,395 books in the library at the close of the fiscal year, of which 117 had been added. One thousand and sixty-five volumes were condemned and destroyed. The number read or circulated was 32,439. Six newspapers and 39 periodicals are subscribed for; none of either are furnished free. There is no catalogue of books for use of members.

BAND.

The band is composed of 24 musicians—2 members of the Home and 22 civilians. Total cost, including subsistence and other allowances of civilians, \$9,825.12. Average monthly pay of leader, \$100; of members, \$30; of civilians, \$46.

THEATER.

Five thousand five hundred dollars was paid for performances in the theater. Members are admitted free to all performances, but others pay from 15 cents to \$1 each, and \$884 was received from this source,

## BEER HALL, HOTEL, RESTAURANT, AND STORE.

The beer hall is provided with a small number of tables and chairs, use of which is restricted to cripples. This system is believed to be objectionable. Tables and seats should be provided, so that members may drink their beer in comfort. This defect was noted by the inspector last year. At all other Branches beer halls are provided with tables and seats. Hotel and restaurant are apparently well managed. The store in its several branches is successful in its operations, and appears to be well managed.

## RELIGIOUS SERVICES.

Religious services are attended by from 100 to 500 of the members, according to the season of the year. The average per cent of attendance at regular services is about 15.

## FARM.

This Branch has under lease for ten years 105 acres of land, at \$275 per annum. The lease has seven years to run. It is subleased for \$220 per annum.

Three acres are under cultivation by the Home, all as a garden for vegetables. No cows are kept. Milk is purchased at 24 cents per gallon.

Value of farm stock (draft animals) on hand June 30, 1905, \$1,850.

Thirty-nine hands are employed—27 members and 1 civilian in the vegetable and flower garden and 11 members in teaming.

*Value of the garden products.*

Beets -----	\$119.63	Kale -----	\$16.50
Beans, string -----	90.60	Lettuce -----	32.80
Carrots -----	38.90	Tomatoes -----	86.08
Celery -----	11.70		
Corn -----	43.40	Total -----	464.61
Cucumbers -----	25.00		

There are 11 wagons of various kinds, 9 carts, 1 hearse, 2 carriages, 9 horses, and 5 mules, all used in connection with the public business of the Home.

Daily allowance of forage for a horse, 12 pounds of corn and 14 pounds of hay; of a mule, 9 pounds of corn and 14 pounds of hay. Besides the horses and mules there are no animals at the Branch.

Value of vegetable products:

Turned into commissary ----- \$464.61

Cost of maintaining:

Lawn and flower garden ----- 3,919.68

Transportation and teams ----- 3,937.00

7,856.68

Appropriation for maintenance of farm, \$13,500.

Closet near stables unsanitary; it should be removed and suitable earth closet in less conspicuous place provided. Manure pile south of stable and compost pile west of same cause many flies; they should be removed to a point as far away as possible from the stable.

## TREASURER.

## GENERAL FUND.

The receipts of the general fund for the year were: By transfer, \$369,445.95; from sales and other sources, \$9,836.26; total, \$379,282.21. The expenditures aggregated \$354,381.03, of which \$251,321.84 was expended by check and \$103,059.19 in currency. Received on account of posthumous fund, \$2,763.09; disbursed, \$1,186.87.

The only improvement (not repairs) was installing of 3 new boilers, at a cost of \$7,849.30. The cost of repairs (not construction) was \$23,110.01. These repairs consisted principally of renewing the steam-pipe system, plumbing, painting, and new flooring.

Ninety open-market purchases were made, at a cost of \$3,557.05. These purchases were made under all the subheads of appropriation, except transportation and construction.

The following are the contract prices of the principal articles of food purchased during the last quarter of the fiscal year:

Articles.	Amount purchased.	Cost.	Where purchased.
Flour.....pounds..	117,322	\$0.09002	Richmond, Va.
Fresh beef.....do..	35,557	.0018	Chicago, Ill.
Corned beef.....do..	14,400	.0475	Do.
Bacon.....do..	15,000	.0898	Brooklyn, N. Y.
Salt pork.....do..	1,800	.0758	Do.
Fresh fish.....do..	4,500	.0850	Ripraps, Va.
Codfish.....do..	3,000	.05375	Gloucester, Mass.
Salt mackerel.....do..	15,000	.05325	Do.
Coffee.....do..	15,041	.1050	Baltimore, Md.
Tea.....do..	1,474	.2425	Boston, Mass.
Potatoes.....bushels..	2,640	.5050	Hampton, Va.
Navy beans.....pounds..	6,525	.03	Do.
Lima beans.....do..	1,748	.0625	Richmond, Va.
Ham.....do..	13,868	.0994	Brooklyn, N. Y.
Oleomargarine.....do..	18,072	.10375	Cincinnati, Ohio.
Cheese.....do..	5,430	.12	Do.
Sugar, A.....do..	30,263	.0554	Baltimore, Md.
Sugar, granulated.....do..	3,356	.0594	Do.

Employees authorized, 6 officers, 38 noncommissioned officers, 510 members, 43 civilians; average actually employed, 6 officers, 38 noncommissioned officers, 486 members, 43 civilians. Average daily pay: Officers, \$5.20; noncommissioned officers, 56 cents; members, 33½ cents; civilians, \$1.58. Their pay for the year amounted to \$103,252.45. Total number who worked without pay, 307; they were employed in policing the camp and roadways.

Average per capita cost of maintenance, \$144.37, as against \$148.02 for the preceding year, a decrease of \$3.65.

## POST FUND.

Employees authorized, 56 members and 30 civilians, while the average number daily employed was 38 members and 30 civilians. Their pay amounted to \$15,757.84.

Cash on hand July 1, 1905, \$18,335.17, as compared with \$13,019.88 at the beginning of the year. The stock and fixtures on hand at the close of the year were valued at \$272.57 more than at the beginning of the year.

The net profit of the fund was \$21,387.23.

## 272 NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

### PENSION FUND.

Number of pensioners on the rolls June 30, 1905, 3,344, of whom 2,300 were present at the Home on that date.

Amount due pensioners July 1, 1904.....	\$38,668.72
Amount received during the year.....	423,920.00
Total .....	462,588.72
Amount disbursed, currency.....	\$287,893.73
Amount disbursed by check.....	134,589.32
	422,483.05
Balance due pensioners July 1, 1905.....	40,105.67

The pensioners were receiving sums ranging from \$6 to \$100 per month, only 1 receiving the larger amount. Six hundred and fifty-nine of them had balances of less than \$100 to their credit, 76 had between \$100 and \$500, 3 had between \$500 and \$1,000, and 1 had more than \$1,000. Three clerks (members) are employed on pension business at annual salaries of \$780. As this is the third largest Branch in point of pension business, the employment of a civilian clerk on these records is recommended.

### RECAPITULATION.

Total balance July 1, 1904.....	\$84,182.79
Received from general treasurer.....	\$369,445.95
Received from other sources.....	9,836.26
	379,282.21
Received from post fund.....	80,648.82
Received from pension fund.....	423,920.00
Total .....	968,033.82
Disbursed, general fund.....	\$354,381.03
Transferred, general fund.....	13,762.92
	368,143.95
Disbursed, pension fund.....	422,483.05
Disbursed, post fund.....	75,333.53
Balance June 30, 1905.....	102,073.29
Total .....	968,033.82

### QUARTERMASTER AND COMMISSARY STORES.

On hand July 1, 1904.....	\$7,750.00
Received from general depot.....	3,072.85
Received by purchase.....	76,400.21
Total .....	87,223.06
Dropped by board of survey.....	\$8,454.55
Dropped by inspector.....	1,273.92
	9,728.47

Balance on hand June 30, 1905, \$10,551.95.

The following classes of property were received from the depot:

Current expenses.....	\$800.25
Subsistence .....	1,016.74
Household .....	792.20
Hospital .....	454.00
Clothing .....	21,184.96

Following is a statement of the clothing accountability:

On hand July 1, 1904:	
In stock and awaiting condemnation-----	\$12,264.79
Issued to members-----	48,504.47
	<hr/>
	60,769.26
Received from depot-----	21,184.96
Received from other sources-----	1,529.61
	<hr/>
	83,483.83
Inspected, condemned, and expended-----	18,561.96
	<hr/>
On hand July 1, 1905:	
In stock and awaiting condemnation-----	13,589.15
Issued to members-----	51,332.72
	<hr/>
	64,921.87

Twenty-one men are employed in the laundry, which was conducted at a cost of \$2,880 for labor and \$1,924.16 for material. Members are permitted to send to the laundry each week one suit of underwear; there is no limit to other articles.

No changes were made in the area of the reservation, which consists of 69 acres, 43 acres of which is leased from the Hampton Normal School; annual rental, \$4,000. The Reservation, barracks, etc. barracks were originally intended to accommodate an aggregate of 2,400 men. On June 30, 1905, they were occupied by 1,929 men. The average dormitory air space per man is 820 cubic feet.

#### SHOPS.

Shops for renovation and repair of clothing behind in their work.

#### SUBSISTENCE DEPARTMENT.

Value of subsistence stores on hand June 30, 1905, \$3,888.19. Stores that originally cost \$434.31 were condemned, but none were sold.

The dining hall has a capacity for seating 1,176 men. An average of 38 men were employed in the kitchen and 81 in the dining hall.

The average cost of a ration per day, including vegetables, etc., produced on the Home grounds, was 15.72 cents. For the preceding year it was 15.11 cents.

Average cost of a hospital ration per day, including extra diet, 17.88 cents. Last year it was 17.70 cents.

Swill and garbage to the estimated monthly weight of 45,000 pounds were produced. They were sold to the highest bidder, and the year's product brought \$727.20. Slop cart should be kept covered.

More frequent messes of fresh fish are desirable. If breakfast bacon were sometimes fried instead of being served boiled it would be more satisfactory.

It was reported that in the fabrication of 591,304 pounds of bread, 57,860 pounds of biscuit, 15,551 pounds of cake, and 1,497 pies, the following articles were used:

Flour -----pounds--	460,966	Molasses -----gallons--	104
Flour, graham -----do----	5,684	Lard -----pounds--	4,694
Corn meal -----do----	3,957	Mince-meat -----do----	1,976
Salt -----do----	6,491	Ginger -----do----	16
Yeast -----do----	1,093	Baking powder -----do----	240.5
Sugar -----do----	2,665	Eggs -----dozens--	426.5
Sirup -----gallons--	144		

#### ENGINEER DEPARTMENT.

Fresh water is supplied from wells on the Home grounds, supplemented by a supply from the Newport News Water Company. There is a salt-water system for flushing the water closets. There is a gravity and pumping system of drainage and sewerage in good condition.

The steam plant was maintained during the past year at a cost of \$37,510.

Light is supplied by the Newport News and Old Point Railway and Electric Company. Lamps and fixtures are provided by the Home Electric Company. The cost was \$10,631.64 for light and \$606 for lamps and fixtures. There are 21 arc lights and 1,946 incandescent lights. The former contract with the electric light company wherein a flat rate per light for each light installed was paid was replaced by one based on the meter system, resulting in a large saving to the Home.

The ice plant consists of a 10-ton machine. Eight hundred and sixty-five tons of ice were produced at a cost of \$1.20 per ton.

Upon completion of the work of reclaiming land and building wharf, different arrangements for handling and storing coal should be made.

#### FIRE DEPARTMENT.

Storehouses and several frame barracks not provided with stand-pipes and hose. No fire curtain in theater. The system of alarm signals and the organization for protection against fire are incomplete and inadequate.

#### MEDICAL DEPARTMENT.

On June 30, 1905, the sick were: In hospital, 369; in convalescent companies, 108; at sick call, 53.

The hospital has a capacity for 442 patients, and there are quarters for 119 convalescents. Total number of patients admitted to hospital, 921; daily average in hospital, 393.

The principal diseases and percentage of each to the whole number of cases were: Bronchitis, acute and chronic, 12.6; nervous system, 14; gastro-intestinal, 11.9; heart, 16.8.

Eighteen members were sent to insane asylums.

Two hundred and sixty-two members died in hospital, and 43 elsewhere; total, 305. Of these 301 died from natural causes and 4 from other causes.

Average age at death, 69.81 years. Last year it was 73.20 years.

Death rate per thousand of the average present and absent, 70.91.



During the year 204 members were buried in the Hampton National Cemetery. Total number interred there, 3,772. The capacity of the cemetery is not known.

Average number of employees: Members, 101; civilians, 16; female nurses, 10. Their annual pay amounted to \$22,630.54.

Three hundred and thirty different drugs and preparations were used in the dispensary. Amount expended for drugs, \$3,593.03; for appliances, \$394.21.

The morgue should be provided with suitable vault.

#### No. 10.—General Depot.

The general depot for the manufacture of uniform clothing, underwear, bedding, mattresses, blank forms, etc., and for the receipt, inspection, and storage of supplies for the various Branches of the Home is located at the Central Branch, near Dayton, Ohio. For many years it has been under the supervision of Mrs. E. L. Miller, who has conducted its affairs with great efficiency.

The following was the cost of material furnished to each of the depot shops for fabrication and of the articles fabricated therein; Tailor shop, \$91,891.93; underwear and bedding shop, \$20,204.94; suspender shop, \$1,181.34; printing office, \$2,612.83; sundry expenses, \$564.22. Fabricated articles: Tailor shop, \$124,896.71; underwear and bedding shop, \$28,998.66; suspender shop, \$1,377.32; printing office, \$3,865.60. The amount paid for services in each was: Tailor shop, \$34,233.49; underwear and bedding shop, \$9,091.77; suspender shop, \$191.55; printing office, \$975.47.

The average number of salaried employees was 45—42 members and 3 civilians. The amount paid them for their services was \$11,818.12. The average number employed on piecework was 158—34 members and 124 civilians, and they were paid during the year \$32,674.16. They were employed in the manufacture of uniform clothing, underwear, bedding, etc.

The pay rolls are made up at the general depot and forwarded to the New York office on the last day of each month. The vouchers are made up in the treasurer's office at Central Branch and forwarded to the New York office on the 25th of each month; both pay rolls and vouchers are paid by the general treasurer through the treasurer at Central Branch.

Purchases and contracts are made by the general treasurer. Contracts are subject to the approval of the Board of Managers. Office supplies, repairs to machinery, oil, hoop iron, nails, etc., are purchased in the open market.

The goods purchased are, upon arrival at the depot, inspected by the superintendent. The articles fabricated at the depot are inspected by the foreman of the tailoring department.

Total receipts from sale of clippings, \$2,086.55; from sale of white gloves, \$334.17.

No clothing or other articles were sold to State Homes.

From the reports of the operation of this establishment it appears that the stock of purchased and fabricated articles, and of materials on hand at the close of the year, was greater than the amount transferred to all the Branches during the year, as follows.

Appropriation.	Transferred during year.	On hand June 30, 1905.
Subsistence .....	\$11,939.70	\$14,649.50
Household .....	30,246.81	46,888.00
Hospital .....	9,210.65	18,081.74
Clothing .....	226,058.44	257,140.86
Total .....	276,455.60	336,760.10

Including the value of clothing on hand June 30, 1905, as reported by the Branches, the total stock amounts to \$302,583.62. As the annual appropriation for this purpose is \$300,000, the necessity for this large surplus is not apparent. In the item of shoes, with 24,250 pairs on hand July 1, 1904, 24,000 pairs were purchased, while only 21,421 pairs were sent to the Branches, leaving 26,829 pairs on hand at the close of the year.

Of stockings there were on hand at the beginning of the year 37,285 more pairs than were issued during the year to the Branches, yet 33,696 pairs were purchased during the year. Uniform caps show an increase in stock at the close of the year of 2,314, while in gloves the number of pairs on hand June 30, 1905, was 9,081, after having issued 2,388 pairs and condemned 20,131 pairs. Of knit wool shirts 40,325 remained after issuing 32,986 during the year. The same excess is observed in the hospital articles on hand, where the valuation of the stock June 30, 1905, was \$11,054.16, as against \$3,024.22 issued. In many of the articles pertaining to household, such as tableware, etc., from two to six years' supply was reported on hand. The carrying of so large a surplus appears unnecessary and is believed to be not for the best interest of the Government.

The same grade of knit wool underwear and woolen stockings are issued to the members, regardless of locality or season. This is unnatural, unnecessary, and objectionable.

In his report last year the inspector invited attention to the poor quality of the drab hat, to the desirability of a hip pocket in trousers, and to the advisability of an admixture of wool and cotton for socks to avoid shrinkage and to add strength. Attention is again invited to these matters. The shoes issued during the past year have not given entire satisfaction. Those purchased during the year are of better quality and better shape, while the new model for the purchases of the current year appears to be excellent.

There appears still to be some difficulty in fitting the members with uniform clothing.

The records at the tailor shop at the Mountain Branch show that during one month over 40 pairs of trousers were altered, principally in shortening the legs. The depot is making every effort to overcome this difficulty.

Following is a list of sizes of trousers manufactured for issue:

No.	Waist.	Inseam.	No.	Waist.	Inseam.
1 .....	32	30	9 .....	40	33
2 .....	32	34	10 .....	40	31
3 .....	34	32	Extra .....	42	31
4 .....	34	34	Extra .....	42	33
5 .....	36	32	Extra .....	44	33
6 .....	36	35	Extra .....	46	33
7 .....	38	33	Extra .....	46	31
8 .....	38	30	Extra .....	48	32

Other sizes made to measurements.

# NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS. 277

*Rates paid for each class of piecework, fiscal year ending June 30, 1905.*

Articles.	To mem- bers.	To civil- ians.
Aprons, denim and white.....each.....		\$0.04
Blouses.....do.....	\$0.85	.50
Caps, white.....do.....		.05
Coats, dress and great.....do.....	.75	1.00
Drawers, canton flannel.....per pair.....		.15
Gowns.....each.....		.50
Jackets, white.....do.....		.30
Mattresses (tufting and finishing).....do.....	.05	
Overalls.....per pair.....		10¢
Pillowcases.....each.....		.02
Sheets.....do.....		.08
Shirts, cotton.....do.....		.25
Towels, bath, hand, and roller.....do.....		.02
Trousers.....per pair.....	.30	.85
Vests.....each.....	.45	.50

*Average quantity of material used in the manufacture of each article of bedding, clothing, etc.*

Articles.	Amount.	Articles.	Amount.
Aprons, denim:		Pillowcases, hospital:	
Denim.....yards.....	1.2310	Sheeting.....yards.....	1.0785
Tape.....dozen.....	.0360	Sheets, household:.....do.....	2.5277
Aprons, white:		Sheeting.....do.....	2.6046
Muslin, bleached.....yards.....	1.2511	Shirts, cotton:	
Tape.....dozen.....	.0364	Shirting.....do.....	2.28751
Blouses:		Buttons.....dozen.....	1
Flannel, d. b., 11-ounce.....yards.....	1.5452	Stripes, white, officers:	
Drill, unbleached.....do.....	1.0058	Cloth, white.....yards.....	.0908
Jeans, Kentucky.....do.....	1.4865	Stripes, white, sergeant:	
Wigan.....do.....	.2798	Cloth, white.....do.....	.0598
Buttons, coat.....dozen.....	1	Stripes, white, corporal:	
Caps, white:		Cloth, white.....do.....	.0577
Duck, cotton.....yards.....	.3003	Suspenders:	
Coats, dress:		Webbing.....do.....	1.6734
Cloth, d. b., 20-ounce.....do.....	1.5432	Binding.....do.....	.0023
Canvas, French.....do.....	.5309	Buckles.....dozen.....	1
Drill, unbleached.....do.....	1.5459	Double-pair straps.....do.....	1
Flannel, coat lining.....do.....	1.8280	Towels, bath, household:	
Interlining.....do.....	1.1954	Crash, unbleached.....yards.....	1.2467
Silesia.....do.....	.0436	Towels, hand, household:	
Wadding.....dozen.....	.0901	Crash, unbleached.....do.....	1.0000
Buttons, coat.....do.....	1	Towels, roller, household:	
Buttons, vest.....do.....	1	Crash, unbleached.....do.....	2.9858
Coats, great:		Towels, bath, hospital:	
Kersey, s. b., 20-ounce.....yards.....	2.2773	Crash, bleached.....do.....	1.2674
Canvas, French.....do.....	.6198	Towels, hand, hospital:	
Drill, unbleached.....do.....	1.5295	Crash, bleached.....do.....	1.0000
Flannel, coat lining.....do.....	2.0683	Towels, roller, hospital:	
Interlining.....do.....	1.1617	Crash, bleached.....do.....	3.0349
Wadding.....dozen.....	.1336	Trousers:	
Buttons, coat.....do.....	1	Kersey, s. b., 20-ounce.....do.....	1.2530
Drawers, canton flannel:		Drill, black.....do.....	.0833
Flannel, canton.....yards.....	2.4726	Drill, unbleached.....do.....	.5310
Tape.....dozen.....	.0080	Buttons, fly.....dozen.....	1
Buttons.....do.....	1	Buttons, suspenders.....do.....	1
Gowns, hospital:		Vests:	
Homespun, n. e.....yards.....	6.6074	Cloth, d. b., 16-ounce.....yards.....	.3562
Buttons.....dozen.....	1	Buckram.....do.....	.6059
Hooks and eyes.....do.....	1	Silesia, black.....do.....	.6327
Jackets, white:		Silesia, slate.....do.....	.8868
Duck, cotton.....yards.....	2.2834	Buckles.....dozen.....	1
Mattresses, 36 inches:		Buttons, vest.....do.....	1
Filling.....do.....	1	The following old materials were used in the fabrication of the follow- ing articles:	
Ticking.....yards.....	4.4630	Coats, great:	
Batting, cotton.....pounds.....	.0030	Buttons, coat.....gross.....	10.11
Twine.....do.....	.0050	Overalls:	
Overalls, denim:		Buckles.....do.....	10.11
Denim.....yards.....	3.0158	Vests:	
Buckles.....dozen.....	1	Buttons, vest.....do.....	21.11
Buttons, fly.....do.....	1		
Buttons, suspender.....do.....	1		
Pillowcases, household:			
Sheeting.....yards.....	1.0932		



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